

Today

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of Georgia**

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Medicine at the Crossroads

PRESIDENT DANIEL W. RAHN
SAYS MCG IS HELPING
TO USHER IN A NEW ERA
OF HEALTH CARE.

HPV Breakthrough

A NEW VACCINE PROTECTS AGAINST
CANCER-CAUSING INFECTIONS.

Confusionectomy

A STUDENT INITIATIVE ENHANCES
COMMUNICATION WITH LOW-LITERATE
PATIENTS.

From the Presidents

Luckily, my injury was relatively minor and the treatment straightforward – a sling and an involuntary respite from my tennis game. The view I was afforded of our emergency room was unsurpassed.

As I review the most recent volume figures for the MCG Health System, I have a greater appreciation for what those numbers mean, both as productivity measures and as indicators of the trust and faith this community puts in the staff of our hospitals and clinics.

Since I've been president, I've learned a lot about what it takes to keep the wheels of an academic medical center turning. But I've focused primarily on programs in education, research and clinical care. This past fall, I launched an initiative to learn more about the work of the support units on our campus – this time, a proactive change in my perspective.

I spent an afternoon working in the campus mailroom. I have worked side by side with our housekeeping and pest control staff. Over the next

year, I will be on the job with our public safety officers, librarians, groundskeepers and many other staff across the campus, learning more about the complexity of our operations.

I hope you enjoy this issue of *MCG Today* and the perspective it provides on the good work of the Medical College of Georgia.

Sincerely,



DANIEL W. RAHN, M.D.
President, Medical College of Georgia



Photography is a matter of perspective. The best photographs offer a different way of seeing things that are familiar to us. Leadership is a matter of perspective, as well. Sometimes we need to change our vantage point to get a better view.

This past September, I broke my collarbone in a mountain biking accident along the Augusta Canal and was forced to make an unplanned visit to the MCG Medical Center emergency room. My familiar roles as physician and president became secondary to my status as a patient – an unexpected but nonetheless highly instructive shift in perspective.

I remember my first visit to Augusta. I was here interviewing for my current position. At my very first recruitment dinner, I asked Dr. Dan Rahn about the quality of life in Augusta. He leaned over, looked me in the eye and said, "Augusta is very

seductive." I didn't quite grasp his meaning at the time, but I now know exactly what he meant. Many of us came to MCG and Augusta thinking we would be here for a short time. But we fell in love and ended up staying

for longer than we initially expected.

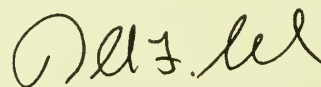
The arts have a sizeable impact on Augusta's quality of life. Augusta's fertile arts scene is disproportionately good; the symphony, opera and ballet are on par with those of a much larger city, say the Philadelphia Orchestra or the Metropolitan Opera. The first Augusta Symphony performance I attended was Gilbert and Sullivan's *El Capitan*. It featured performers from the New York Met combined with excellent local talent.

Not only do I personally enjoy Augusta's arts scene, but I've come to appreciate the impact it has on my professional life. Over the past years, we have recruited numerous world-class medical professionals to our ranks. They come to MCG because we offer them state-of-the-art facilities, challenging clinical cases, a learning

environment and a competitive compensation package. However, recruiting them is an easier sell because of a vibrant arts community, excellent restaurants, a reasonable cost of living and a high quality of life.

We are very proud of the caliber of medical professionals we attract. We thank the Augusta arts community for the role it plays in "seducing" our recruits.

Sincerely,



DON SNELL
*President and Chief Executive Officer
MCG Health, Inc.*



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A new vaccine protects against cancer-causing infections.

A PART OF THE SOLUTION

The new School of Nursing dean nurtures the potential of every member of the team.

CONFUSIONECTOMY

A student initiative enhances communication with low-literate patients.



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NEWS BRIEFS

VESSEL OF LIFE

THANKS A MILLION



Augusta businessman James Hovey Keels Jr. has bequeathed \$1 million to the Medical College of Georgia and the MCG Children's Medical Center.

"Mr. Keels' generous gift will help meet the specialized needs of hospitalized children and support education and research initiatives in lung disease," says Keith Todd, MCG vice president for university advancement.

Mr. Keels, the longtime owner and operator of an Augusta gasoline station who died Feb. 26, 2003 at age 84, was a great supporter of MCG's educational, research and clinical mission, says his attorney and longtime friend, Tom Huggins. "As a sufferer from emphysema, J.H. Keels Jr. supported the research work at the Medical College of Georgia and hoped MCG's research could one day help others with this condition," says Mr. Huggins. "In addition, he cared about children and wanted to help those who couldn't help themselves."

The gift includes \$300,000 to support CMC staff development through the J.H. Keels Jr. Endowment Fund; \$200,000 for CMC specialized equipment and physical improvements; and \$500,000 to support the training of pulmonary/critical care specialists.



MCG PRESIDENT DANIEL W. RAHN (RIGHT) PRESENTS AWARD TO SAMUEL B. KELLETT

THE VESSEL OF LIFE, AN ANNUAL HONORARY AWARD GIVEN BY THE PRESIDENT OF THE MEDICAL COLLEGE OF GEORGIA SINCE 1995, IS A BRONZE SCULPTURE DESIGNED BY KATHLEEN GIRDLER-ENGLER.

THE SCULPTURE IS DESCRIBED AS WATER FLOWING OUT OF A BOWL. THE BACK OF THE BOWL HAS A HANDPRINT THAT REPRESENTS THE "HELPING HAND" THE RECIPIENT HAS PROVIDED.

THE BOWL REPRESENTS THE UNIVERSITY AND THE FLOWING WATER REPRESENTS THE NECESSITY FOR LIFE AND NATURE.

The Medical College of Georgia has presented a Vessel of Life Award to Samuel B. Kellett, chair and president of SBK Capital, LLC. MCG President Daniel W. Rahn presented the award, which honors support for the university's advancement, during MCG's Oct. 23 President's Dinner.

"The MCG community gathers to honor you for your resolute support of the education, research and clinical missions of Georgia's health sciences university," President Rahn said in presenting the award. MCG also presented Mr. Kellett with its first honorary doctorate in 2001.

Mr. Kellett, a native Georgian, earned a bachelor's degree in business from the University of North Carolina-Chapel Hill. His career has included nursing home management, real estate and telecommunications. He is a founding member and board member of the Community Foundation of Southwest Georgia.

"Sam is a prescient entrepreneur and has generously lent us his significant financial acumen as a member of the Board of Directors of the MCG Foundation," said President Rahn. "He has played an immeasurable role in the growth and development of an expanded research mission for MCG by establishing in the late 1990s the first endowed chairs in the MCG Schools of Allied Health Sciences and Nursing. And it is no coincidence that our School of Nursing's satellite campus in Athens, Ga., is located in the Kellett Building."

His daughter, Margaret (Mari) Varnado Smith, earned a master's degree from the MCG Department of Physical Therapy in 1999.

INNERSPACE IMAGES



What once was the stuff of Hollywood – cameras traveling through the human body – is now medical reality. For several months, Dr. Sherman Chamberlain has performed MCG Health System's first capsule endoscopies to locate disorders of the small intestines.

The capsule is a tiny video camera that travels through the body while

sending images to a data recorder worn around the waist. The patient swallows the capsule on an empty stomach approximately eight hours before the physician downloads and reviews the video. The capsule passes naturally through the digestive tract.

"The wireless capsule endoscopy [enables evaluation] of small bowel disorders that otherwise would not be found by traditional means," says Dr. Chamberlain, a gastroenterologist. "Previous tests to diagnose conditions of the small bowel were effective in only 5 to 10 percent of cases. The wireless capsule endoscopy, on the other hand, has been shown to provide diagnosis in 50 to 60 percent of cases."

AWARD-WINNING PROGRAM

The Medical College of Georgia has been ranked eighth nationwide for continuing education in human research management for 2004 by the National Association of Institutional Review Board Managers.

Criteria include external conference attendance; conference participation; teaching; publishing; external research organization leadership; and certification, staffing, reporting structure and regulatory inspection results by the Institutional Review Board. Others included in the ranking are Morehouse School of Medicine in Atlanta; Columbia University in New York; St. Thomas Hospital in Nashville, Tenn; and Candler/St. Joseph Hospital in Savannah, Ga.

The award reflects the institutional resources that support the staff of the Human Assurance Committee (MCG's institutional review board) and the Office of Clinical Trials Compliance for travel and education, according to Dr. Matthew J. Kluger, vice president for research and dean of the School of Graduate Studies.

"This distinction places our educational program for clinical research training on the national stage for other programs to model," says Dr. Kluger. "It shows that our staff has obtained voluntary certifications for knowledge in the protection of human subjects and human-derived materials."

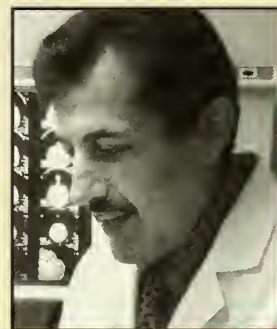
PINPOINT PRECISION

Health system otolaryngologists and neurosurgeons recently teamed to perform MCG's first endoscopic pituitary surgery. Traditional surgery to remove a pituitary gland tumor requires an incision through the nostrils. In some cases, the tumor may have to be removed through the front of the skull. But the new procedure enables inserting a tool endoscopically through the nose, straight through the sinus area and into the pituitary gland.

"This new approach has significant benefits for patients, [including] less pain, more comfort, a quicker recovery and minimal trauma to the nose," says Dr. Stil Kountakis, director of rhinology/sinus surgery and the Georgia Sinus Center.

"We have the expertise to perform this procedure as well as the technology,"

says Dr. John Vender, vice chair of neurosurgery. "We use a specialized, powered endoscope holder that steadies the instrument with pinpoint precision, leaving the surgeon's hands free to perform other aspects of the surgery. We also have a computer image-guided system to precisely localize the area where surgery is performed while preserving other structures."



"This new approach has significant benefits for patients: less pain, more comfort, a quicker recovery and minimal trauma to the nose."
–Dr. Stil Kountakis

Three tiny polyester cords placed in the floppy tissue near the back of the roof of the mouth have been proven to curb snoring, and researchers want to know if they can stop potentially dangerous sleep apnea as well.

MCG is participating in a nationwide study of the Pillar Palatal Implant System – approved by the Food and Drug Administration in December 2002 to treat snoring – for its potential in sleep apnea, says Dr. David J. Terris, chair of the Department of Otolaryngology-Head and Neck Surgery.

“This is the most recent innovation in treating snoring,” he says. “It’s a one-step procedure where you insert a biologically inert

implant in the palate at three different locations, and it works like a batten on a sail. Instead of the palate flopping and fluttering, these battens make it a little stiff so it doesn’t flutter.”

The researchers hope the device curbs not only snoring, but sleep apnea, in which an obstructed airway causes habitual awakening as sleepers gasp for air.

Eligible patients include normal-weight adults with mild to moderate sleep apnea whose bed partner is willing to fill out a sleep diary. MCG is enrolling about 30 patients in the study; nationally, about 100 people will participate.

HOSPITALISTS ON BOARD

The Children’s Medical Center offers a new hospitalist service to help busy surgeons and community pediatricians manage hospitalized patients.

“We hope to improve the quality of care by having one physician on the floor at all times,” says Dr. Karthik Krishnan, who partners with Dr. Jennifer Wilson to offer the hospitalist service. “[The hospitalist] can focus on the details of hospitalization. The program also improves patient satisfaction because you have one doctor who frequently sees the patient throughout the day. This may also lead to a shortened hospital stay.”

Dr. Wilson stressed that hospitalists complement, rather than replace, the role of referring pediatricians.

“The referring pediatricians will get to know us and become more comfortable that we will attend to the needs of their patients,” says Dr. Wilson. “Referring physicians will find a more streamlined process, too. Instead of contacting several hospital departments to get their patients admitted, they’ll only have to deal with one physician. We will cater to their needs.”

“We’ll also be more accessible to the nursing staff,” Dr. Krishnan adds. “The nurses and clerks are excited about having only one person to deal with. But most importantly, we’re there for the patient so that their needs can be easily seen and understood.”

HERD OF COWs

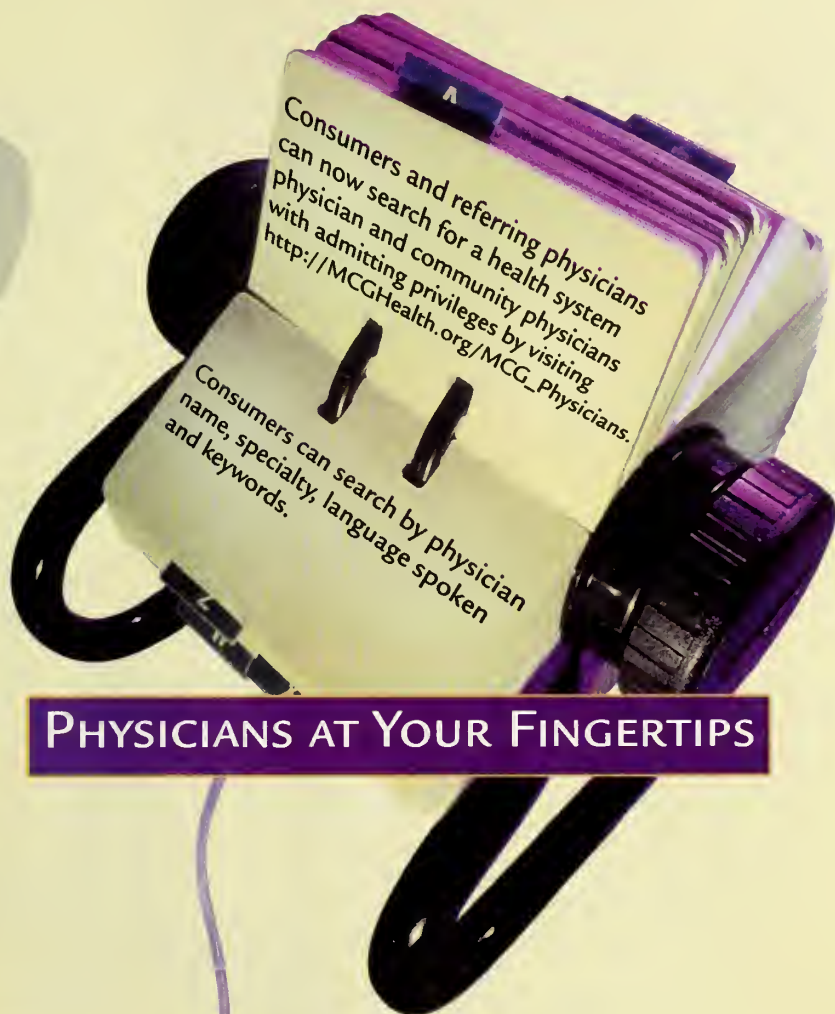
A herd of 66 COWs is thundering through MCG Health System to every inpatient unit and ambulatory clinic. A COW, or Computer on Wheels, is a mobile, battery-operated, height-adjustable computer.

Health care providers can look at radiology results, lab results and transcribed discharge summaries on COWs. They can even look at their clinic schedules to make patient discharge decisions. COWs are also used for bedside registration, helping improve patient wait time and customer satisfaction.



BEST FOOT FORWARD

Dr. Janaki Nadarajah, an MCG Health System orthopedic surgeon, has opened a podiatry clinic to offer early diagnosis and treatment of diabetes-related and other foot problems. He also offers patient education about proper care of the foot and footwear, wound management and surgical removal of soft-tissue sarcomas.



PHYSICIANS AT YOUR FINGERTIPS

BREASTFEEDING KUDOS

Dr. Michelle Brenner, assistant professor of pediatrics, was recently named one of two "Breastfeeding-Friendly Pediatricians" in the CSRA by *Metro Augusta Parent* magazine. She was cited as having a "tremendous impact on the local breastfeeding culture." Dr. Brenner is one of only a few pediatricians nationwide who is an International Board Certified Lactation Consultant.

MCG Health System also was named the "Breastfeeding-Friendly Workplace." Dr. Brenner, Dr. Kathryn McLeod and lactation consultant Teresa McCullen were lauded for creating the Breast Pump Break Room in the Children's Medical Center.



EASING SPASTICITY

MCG Health System has opened a spasticity clinic for pediatric patients.

"We have treatments to help children with cerebral palsy improve their movements and their muscles," says Dr. James Carroll, vice chair of neurology. Those treatments include medications such as Diazepam and Baclofen, and procedures such as botox injections into muscles, dorsal rhizotomy and the insertion of a baclofen pump.

MCG
Health System

Medicine at the Crossroads

USHERING IN A NEW ERA
OF HEALTH CARE

EDITOR'S NOTE: FOLLOWING ARE EXCERPTS
FROM MEDICAL COLLEGE OF GEORGIA
PRESIDENT DANIEL W. RAHN'S 2004
STATE OF THE UNIVERSITY ADDRESS.

I am proud to be able to report that your university is strong, your university is healthy, your university is on an upward trajectory and, most importantly, your university continues to make a positive difference in the health and well-being of the citizens it serves.

While the evidence is strong that MCG is dramatically increasing its impact on the health of the population of this state and nation, we are definitely sailing in turbulent waters. [In light of global, national and statewide challenges], it often feels like we are sailing against both the tide and the wind. But as challenging as it has been, progress toward our institutional destination has been consistent and steady.

The central questions are these: Are we positioned to provide sustainable excellence in education, research and clinical care in an environment characterized by increasingly scarce resources and instability?



Are we positioned to capitalize on the tremendous advances in biomedical knowledge that are emerging from our research laboratories? Are we positioned to translate these discoveries into better health care and, ultimately, better health? And, are we positioned to educate the next generation of health professionals who will provide the leadership for a healthier tomorrow? The answer is a resounding yes.

Academic health centers have both the capacity and the responsibility to usher in a new era in health care for the nation. To provide this level of leadership, we must stay highly focused on our mission and our societal purpose.

We, the faculty and staff of MCG, must embrace the complexity of this new environment ... its challenges and promise ... and continuously mold and reshape our research, academic and clinical programs to maximize the impact of this institution. We must imagine a better future for the citizens of Georgia and we must work to make our ideas reality.

I'm pleased to report [progress in all areas.] The educational enterprise is thriving. This past year, we recruited 160 new faculty members across MCG's five schools. Graduation rates ranged from 86 percent to 100 percent across the university. Ninety-five percent of all MCG graduates passed their licensure and/or certifying exams in their first year of eligibility. Applications to our academic programs and total enrollment are both on the rise. Applications are up 30 percent over the past two years and enrollment has increased 10 percent over the past three years.

In the research arena, we continue to focus institutional resources in areas that address diseases of utmost importance to Georgians: cardiovascular disease, cancer, diabetes, neurological diseases and infection/inflammation. This year, MCG's research funding increased to nearly \$77 million, a rise of 125 percent over the past five years.

I believe that a scientific revolution is under way, a revolution fueled primarily by the description of the human genome and our ever-increasing understanding of the molecular basis of human disease. As we increase our understanding of the synthesis and regulation of genes and proteins, we increase our ability to intervene in the disease process at the molecular level prior to the occurrence of clinical events.

Faculty, through the MCG Health System, are providing cutting-edge, high-quality clinical care to our patients. This past year, patient satisfaction and clinical quality reached an all-time high at MCG. In addition, despite all of the financial challenges, we provided over \$100 million in community service in the form of indigent and charity care through the MCG Health System.



It's hard to ignore the evidence of growth on this campus. This year, we opened phase two of the Interdisciplinary Research Building [and are constructing] the Health Sciences Building and the Cancer Research Center. We've upgraded our financial management infrastructure, our research infrastructure and our information technology infrastructure.

We also continue to build a more diverse campus. Minority faculty currently comprise more than 17 percent of MCG's total faculty workforce; more than 8 percent are African-American or Hispanic. Minority students currently represent 25 percent of total enrollment; 13 percent are from under-represented groups.

Over the past few months, the MCG leadership team has collaborated to create something this campus has never had before—a consolidated strategic financial management plan that enumerates the institution's strategic priorities across all schools and the MCG Health System and identifies costs and funding streams. We have identified more than 130 new important academic tasks, initiatives and programs, all of which are consistent with our mission as the state's health sciences research university.

We have to stay focused, work through issues and size our vision in a manner that is consistent with available resources. We must have a clear vision of where we are going, we must have the plans to get us there and we must be willing to make financial decisions that are in the best interest of the whole.

Our progress over the past three years is striking testimony to the dedication and enthusiasm of the faculty, staff and friends of MCG. We have established key performance metrics and the arrows are all pointing up. But, really, we have no option but to continue to seek higher levels of excellence in our performance in all areas of our mission. Our work is too important to do otherwise.

About the Future

MCG LEADERS EXPLORE UNIVERSITY'S
ROLE IN THE FUTURE OF HEALTH CARE



At his core, he is a physician first and foremost. Dr. Daniel W. Rahn's roles and perspective have broadened considerably since assuming the MCG presidency in 2001. But in discussing the health care issues facing the nation and the world, he remains squarely focused on the individual patient.

"One tenet of the health care profession is that you can change the world, and you do it one patient at a time," says Dr. Rahn, who still practices rheumatology half a day a week and is consistently included in national lists of top physicians. "MCG does that and does it well, and we're committed to doing it better and better in the future."

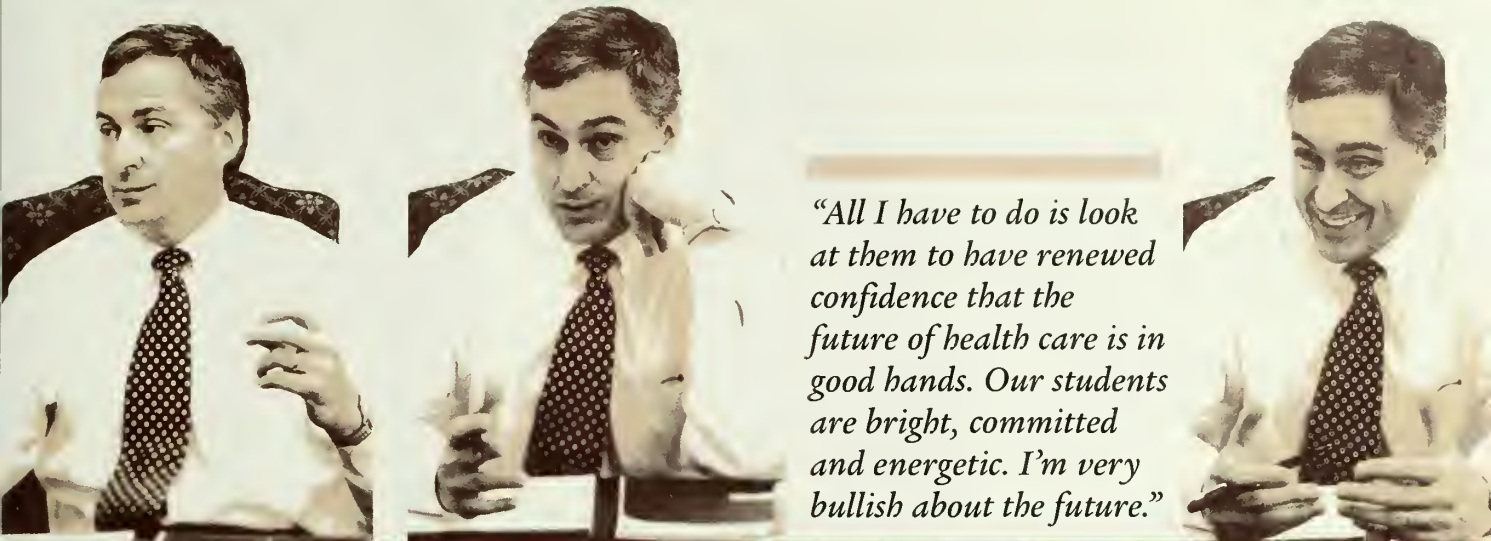
His partner in this endeavor fully agrees.

Don Snell, president and chief executive officer of MCG Health, Inc., is as well-versed in his chosen profession of business as Dr. Rahn is in medicine. They believe each perspective is vital in traversing the ever-more-complicated landscape of health care, but their common ground is dedication to the individual patient.

"I believe a health system can make a difference, not only in the well-being of one person but in the well-being of society as a whole," says Mr. Snell. "MCG does that in three areas – research, service and education – and I don't see one component being more important than another. Every achievement in one area optimizes the synergy of the whole."

"I think that regardless of the issues at hand, we always ask the right question: What is in the best interest of the entire integrated enterprise?"





"All I have to do is look at them to have renewed confidence that the future of health care is in good hands. Our students are bright, committed and energetic. I'm very bullish about the future."

But both men acknowledge that their task can be daunting, particularly as the country grapples with an increasingly burdened health care system.

"Individual hospitals and health care entities must function within the existing structure, and the structure has many challenges," says Dr. Rahn. "Our country spends 15 percent of its gross national product on health care, twice the average of the rest of the industrialized world, yet we lag considerably behind our peer nations in many health indicators."

He and Mr. Snell cite the country's patchwork system combining government, corporate and individual responsibility for health care costs, and no

consensus about how best to apportion them. The strain is showing in all three areas as citizens resist tax increases yet shoulder more responsibility for their medical

expenses, particularly as companies shy away from their traditional yet increasingly burdensome role of providing health insurance for employees.

"Probably 80 million Americans lacked health insurance for at least a portion of the last year," says Dr. Rahn, "and we know that the uninsured have worse health outcomes. Those who have insurance are seeing insurers pay smaller and smaller portions of the bill."

The system also emphasizes acute rather than preventive care and pours disproportionate resources into the last days and weeks of life.

"Is this OK with us?" Mr. Snell muses. "We have to decide as a society, and I think we're reaching a point where people are becoming more involved as they're paying more and more health care costs out of their own pockets."

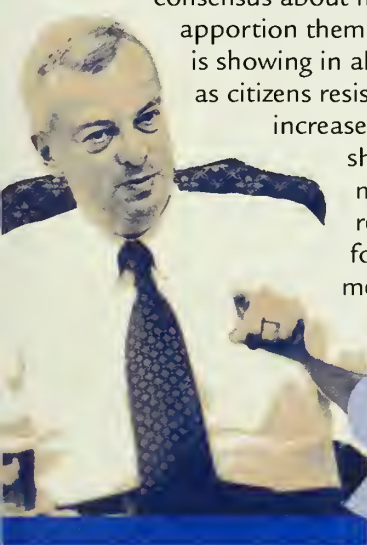
The lack of communitywide discussion, he says, forces hospitals and other health care entities to grapple with the unsustainable mandate to deliver infinite service on a finite budget.

"There are things we can do about access to care, disparities in care, health care costs – all of these areas," says Dr. Rahn, "but it really requires collective decision-making and probably fundamental change."

He and Mr. Snell advocate a societal dialogue that mimics kitchen-table talks of families discussing their needs, developing priorities and realistically budgeting their resources. "As a society, we're spending lots of money in individual areas, but the resources aren't being coordinated," Mr. Snell says.

If the effort is coordinated, says Dr. Rahn, he is confident the country can fairly, wisely and effectively meet the needs of all citizens. "At the 30,000-foot level," he says, "it seems that the amount of resources we're putting into health care should fully meet our needs. We just need a better plan for how to optimize those resources."

Challenges notwithstanding, both men agree that Americans are uniquely fortunate. "The capability of what we can do is so



SNELL

much greater now than when I was in training,” says Dr. Rahn. “The potential evolving through genomics, proteomics and information technology, for instance, is extremely exciting. If I’m sick, I want to be in this country. And I want to be in an academic medical center. That’s what MCG is a part of. And that is very exciting.”

He cites MCG’s astounding record of recent progress, even amid state budget cuts, including an approximately 66 percent increase in MCG’s National Institutes of Health funding in the past two years. The university’s focus on five thematic areas (cancer, cardiovascular disease, diabetes, infection/inflammation and neurological disease) is generating huge momentum, with significant implications for the health of those in Georgia and beyond.

He and Mr. Snell work hard to convey their appreciation to the 10,000-plus members of the MCG community who make it happen. “The role of leadership is to motivate, and that’s easy to do when you look at what we’ve accomplished in such a short period of time,” says Mr. Snell.

He and Dr. Rahn meet at least weekly with Dr. David Stern, dean of the School of Medicine, and Dr. Curt Steinhart, president and chief executive officer of the Physicians Practice Group, to ensure ongoing communication and consistent goals in MCG’s clinical, academic and research missions.

“We don’t always agree, but we always walk out of the room on the same page,” says Dr. Rahn. “And it’s OK to have different points of view. As the quote goes, ‘I’ve never learned anything from someone who agrees with me.’”

“I think that regardless of the issues at hand,” says Mr. Snell,



“We don’t always agree, but we always walk out of the room on the same page. And it’s OK to have different points of view. As the quote goes,

‘I’ve never learned anything from someone who agrees with me.’”

“we always ask the right question: What is in the best interest of the entire integrated enterprise?”

The stakes, they know, are high. As MCG cements its reputation as a premier health sciences university, the institution is playing an ever-greater role in shaping health care in Georgia and beyond. The potential, they say, is boundless.

“We haven’t seen our best days yet,” says Mr. Snell.

Dr. Rahn finds particular reassurance in the faces of those with whom he still most closely identifies – MCG students.

“All I have to do is look at them to have renewed confidence that the future of health care is in good hands,” he says.

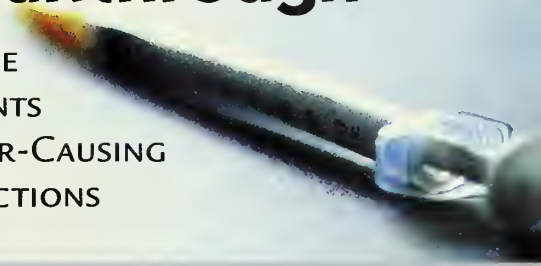
“Our students are bright, committed and energetic. I’m very bullish about the future.”

–Christine Hurley Deriso



HPV Breakthrough

VACCINE
PREVENTS
CANCER-CAUSING
INFECTIONS



A vaccine that could reduce cervical cancer rates by 75 percent is safe and 95 percent effective, according to a study of 1,113 women in North America and Brazil.

The vaccine against the most common cancer-causing strains of human papillomavirus was 100 percent effective in preventing the persistent infections that cause cervical cancer, researchers reported in the Nov. 13 issue of the British journal, *The Lancet*.

"This study provides objective evidence that this vaccine will work, save lives and have a major impact on women's health care," says Dr. Daron G. Ferris, a study co-author and director of the Medical College of Georgia Gynecologic Cancer Prevention Center.

"This is a tremendous advancement for women in particular, although it's likely the vaccine will one day be given to men as well," Dr. Ferris says of the bivalent vaccine that protects against types 16 and 18, which also cause penile cancer.

MCG was the largest study site in North America, with 83 women age 15 to 25 in the study taking three doses of vaccine over six months, then being followed for up to 27 months.

When the vaccine was taken correctly, it was 91.6 percent effective at reducing incident or new infections, the study showed. Researchers noted the vaccine prompted the body to produce high numbers of antibodies to fight the HPV infection; the only side effects were redness and irritation at the vaccine site.

"The efficacy of the bivalent vaccine against HPV 18 infection is particularly important," Drs. Matti Lehtinen and Jorma Paavonen of the National Public Health Institute in Finland note in a companion editorial. Pap smears, used to detect cervical cancer or precancerous changes of the cervix, are not as good at detecting adenocarcinoma, the type of cervical cancer most associated with HPV 18.

"Adenocarcinoma is difficult to find even when we know it's there," Dr. Ferris says of tests and biopsies that typically follow an abnormal Pap smear.

Dr. Ferris notes that the vaccine won't prevent all cervical cancers because it doesn't protect against all cancer-producing strains. However, a

quadrivalent vaccine that also protects against types 6 and 11 – the most common causes of genital warts – already is under study, and more of the some 100 strains of the virus likely will be added as various vaccines are further developed, he says.

Should the Food and Drug Administration approve these vaccines for general use, the target population likely would be girls and boys age 10 to 12 who are not yet sexually active, Dr. Ferris says.

The 15-25-year-old age group featured in *The Lancet* study has the highest incidence of this virus; the lifetime risk for HPV infection is about 80 percent in men and women, he says. About 13,000 women are diagnosed with cervical cancer each year in the United States. Penile cancer is rare, accounting for less than 1 percent of all cancers in men; the risk is higher in uncircumcised men.

In addition to the study featured in *The Lancet*, MCG is participating in several related studies, including an international study of a vaccine that protects against four strains of human papillomavirus in men age 16 to 23.

"It's a great opportunity for men to protect themselves from developing genital warts and penile cancer," says Dr. Ferris. "It's also a great way for men to protect their sexual partners from developing warts as well as cervical cancer, lower genital tract cancers and precancerous changes of the cervix.

"Men and women can both be carriers of HPV," Dr. Ferris says. "If we do a good job and vaccinate men as well, it's less likely that women are going to be at risk. We are really excited about the opportunity to study this vaccine in men."

—Toni Baker





A Part of the Solution

DEAN NURTURES POTENTIAL OF EVERY
MEMBER OF THE TEAM

Dr. Lucy Marion still remembers the medical report tossed casually on the passenger seat of the family car. She was only 9 – surely too young to have any interest in a medical report, much less understand what it meant.

Or so her mother thought.

“I saw the word ‘leukemia,’”

Dr. Marion recalls. “That’s how I found out my mother had cancer.”

Her mother was almost as startled by her daughter’s precociousness as she was by her sudden obligation to explain the inexplicable. How does a mother tell her child that she’s dying?

Dr. Marion doesn’t recall what words were used, or specifically how she reacted. But she grew wise beyond her years that day.

She had no choice. As the second-oldest of five children, Dr. Marion, along with her older sister, turned into a surrogate mother for the younger ones when her mother died. She was only 11, but she wore the role like a second skin.

“It was a challenging, stressful childhood, but it well-prepared me for motherhood, for nursing ... for

life,” says Dr. Marion, a mother of two sons and recently appointed dean of the Medical College of Georgia School of Nursing.

She also had a strong support system, namely two grandmothers who were vastly different but instilled values that Dr. Marion carries to her core. Her maternal grandmother, who raised the children after their mother’s death, emphasized manners, etiquette and culture – a commodity not particularly coveted in their rural Georgia community. Dr. Marion’s paternal grandmother showered unconditional love.

“Her love and belief in us were so powerful that each of us was sustained by her,” Dr. Marion says. “She started saving for our college educations the day we were born. She made sure we had a piano and lessons. She took us shopping for school clothes. She also was a teacher who insisted that we study in the summers spent with her. And she had advanced degrees that set the stage for our futures.”

Both grandmothers also exhibited extraordinary vitality. “The women in my family worked,” Dr.

Marion says. “They contributed to the community, they were politically active, they were involved in helping others and they worked full time at their professional jobs. It came naturally to me.”

Dr. Marion’s childhood also cemented a fierce bond between siblings, one that persists to this day. When she was offered the MCG deanship, she seized the opportunity not only to guide MCG’s nursing school, but to move closer to family. In Augusta, her siblings and a son, who recently

became a father himself, are now in much closer proximity.

Not that it was easy leaving her post at the University of Illinois at Chicago. When she joined the faculty in 1995, she was named head of three newly merged nursing



DR. LUCY MARION

departments, the Department of Public Health, Mental Health and Administrative Nursing. The faculty resented the merger, and Dr. Marion worked hard to win trust and support.

"It took five years to stabilize and move the department forward as a unit," she recalls. "I could help the faculty become productive, but at first, they had a hard time developing comfort with one another. We hung in there, though, and I had great support from my dean, Dr. Joan Shaver. She was my mentor then and is my mentor still. If I had to make a tough decision, our highly functional administrative team vetted the controversial issues and proposed solutions."

"Lucy has an extraordinary gift of seeing patterns of behaviors in people or systems that allowed us mutually to have much greater insights into facilitating our collaborative drive toward greater excellence," says Dr. Shaver, currently the president of the American Academy of Nursing. "She is humble, analytical and cares deeply for others. She continuously seeks input to be an increasingly effective transformational leader and is masterful at determining innovative ways to turn obstacles into opportunities."

Dr. Marion's eventual success in Chicago was a source of great pride that was hard to leave behind. But she was ready for a new challenge and a new environment in which to apply all the hard-won lessons.

"I learned a lot about people during that period," she says, noting that she now lectures on creating a workplace that acknowledges and values different personality types, including preferential ways of changing.

"People fall into three general categories: originators, conservers or pragmatists, and an effective organization needs all three," she says. "Originators are dreamers and inspirers, coming up with new ideas. Conservers are less comfortable with major change and

therefore very useful in saying, 'Yes, but...' Pragmatists are good committee chairs, excellent at finding common ground. I've learned that each type of change preference is important for a well-functioning team."

And never has she been more proud of a team than the one she leads at MCG. "Our faculty really want to move ahead," she says. "They want the best for the School of Nursing, and new leaders are emerging as doorways open."

The faculty says the feeling is mutual. "I have found Lucy to be an exciting and energetic dean," says Dr. Sandra Turner, chair of advanced practice nursing and leader of the school's faculty practice initiative. "She is able to make her vision clear and support us while we collaborate in making those goals a reality. As busy as she has been since coming here, she has moved forward quickly on many timely issues that will improve both the role and education of nursing."

Dr. Marion and the faculty know they have their work cut out for them. The dean is recruiting three associate deans and several more faculty members to supplement the current level of around 50. "And we're recruiting not only educators, but researchers and clinicians who can practice and generate scholarly products and commensurate funding," she says.

Dr. Marion also wants to increase the student body from 459 to around 600, enhance and expand the advanced-practice nursing majors to the level of a practice doctorate and move toward an increasing emphasis on post-baccalaureate education. The school is creating a new master's program for students holding baccalaureate degrees in non-nursing fields to become a clinical nurse leader, and preparing the graduates to incorporate financial and management principles into a team-leader role.

The school also is creating a new clinical doctorate (doctorate of

nursing practice) for graduates of both the traditional and new master's programs.

But even as Dr. Marion embraces the ever-expanding role of nursing, she will never lose sight of its central care-giving mission – the mission that made her love the field from the first day she practiced it. "The minute I walked onto the hospital floor and later into the community health settings, it was clear that nursing was the profession meant for me," she says.

Indeed, the discipline's tradition of compassion and empathy is needed now more than ever before, she says. "Our country's health care system right now is really a non-system for the vast majority of users and especially for the uninsured," she says. "We must create an innovative plan to provide health care for all people."

Nurses' expertise in areas such as chronic disease management, whole-patient care, self-care support, prevention and advocacy uniquely position them to take a leading role in the changing landscape of health care, Dr. Marion says. "The changing landscape of health care provides nursing with our opportunity to succeed, but also a chance to fail. But I'm very optimistic as we envision and implement new and more nursing educational programs. We have highly motivated and well-prepared clinical leaders with an important message: Nurses comprise an essential element of any health care solution – from care and comfort to systems leadership to research. It's not that we will take someone else's piece of the pie. The pie is getting bigger."

Dr. Marion's workload is daunting, as are the school's challenges, but her steady and gracious countenance speaks volumes. "It does not cross my mind," she says, "that we will do anything less than reposition nurses as leaders who improve health care and its delivery throughout Georgia and beyond."

—Christine Hurley Deriso

Inducing Tolerance

RESEARCHER STRIVES
TO BOLSTER
TRANSPLANT SUCCESS

Getting streetwise immune system cells to ignore a transplanted heart or kidney is Dr. Adam W. Bingaman's idea of tolerance.

"Your body was designed to recognize everything that is not you. That includes bacteria, viruses, fungi and transplanted organs, unfortunately," says the transplant surgeon and immunologist at the Medical College of Georgia.

There's a bitter irony in the fact that even though the body needs and the patient wants the new organ, the immune system rapidly targets the foreign object for elimination.

"The beauty of transplant surgery is it's a surgery patients really want, wait for and need. There are more than 60,000 people on the kidney transplant waiting list alone and the average wait time nationally is over three years," says Dr. Bingaman, who came to MCG last summer from the University of Maryland.

"It's been shown that kidney transplants can significantly prolong your life compared to kidney dialysis, never mind your quality of life." But patients then must take broad-action immunosuppressive medicines that increase their risk for infections and even cancer. Another factor is the ongoing cost of the drugs, he says. "Ideally,



DR. ADAM W. BINGAMAN

you'd like to treat patients just around the time of the transplant, have them accept the organs as their own, then allow them to stop the medicines forever."

Within the confines of research laboratories in animal models with pristine immune systems, some selective, short-term approaches to manipulating immunity have worked like a charm. But the findings typically don't hold up in more humanlike primates. One theory is that primates, including humans, have more savvy immune systems that are harder to trick.

T-cells, orchestrators of the immune response, are born without programmed targets. "They start out 100 percent naïve," Dr. Bingaman says of T-cells produced by the thymus. "Your memory pool increases as you age, so by the time you are an adult, you have many memory cells. If you get re-infected, your body will say, 'I have seen this before' and attack more quickly and aggressively." The cells even travel in different circles, with

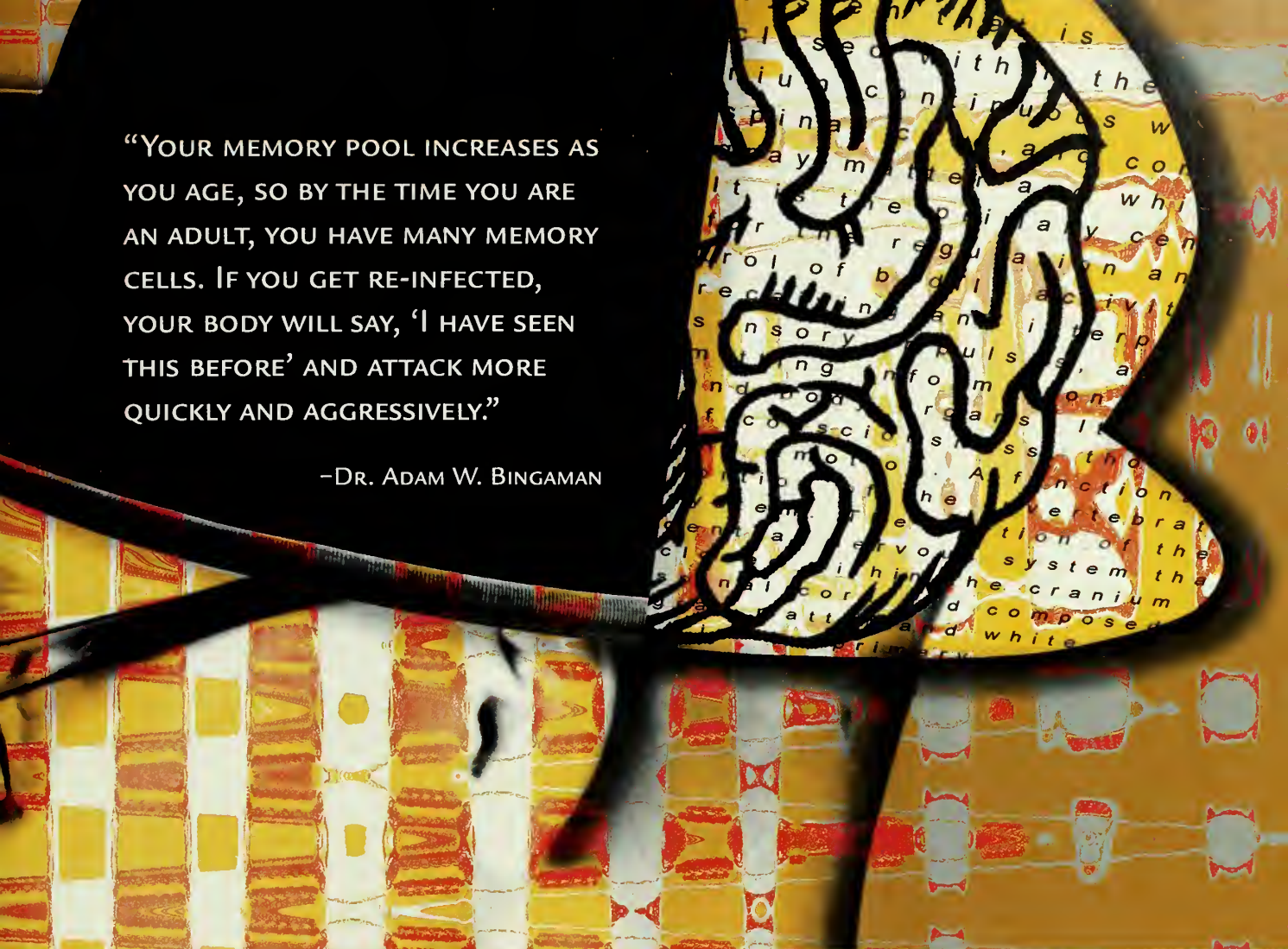
naïve cells staying within the lymph nodes and spleen while memory cells travel throughout the body.

Dr. Bingaman wants to know exactly how these traveling memory cells avoid suppression and exactly what it takes to activate them.

"We have given mice memory," he says of transgenic mice with skin grafts that are enabling him to map that process. The mice have naïve and memory versions of either CD4 or CD8 T cells, known to recognize and respond to the skin grafts. "We are manipulating their immune system so we can track naïve and memory cells and look in the draining lymph nodes or in the spleen of a mouse that got a transplant and ask, 'How can we try to turn some of these cells off?'" Dr. Bingaman says.

Some antibodies, already in human trials, can inhibit naïve CD4 responses but can't suppress memory CD4 responses, he said.

A huge amount remains unknown about the immune response and how it can best be locally manipulated to save a transplanted organ without putting its recipient at risk for other disease. "What we are trying to achieve, tolerance induction, should be applicable to all transplants," says Dr. Bingaman.



"YOUR MEMORY POOL INCREASES AS YOU AGE, SO BY THE TIME YOU ARE AN ADULT, YOU HAVE MANY MEMORY CELLS. IF YOU GET RE-INFECTED, YOUR BODY WILL SAY, 'I HAVE SEEN THIS BEFORE' AND ATTACK MORE QUICKLY AND AGGRESSIVELY."

—DR. ADAM W. BINGAMAN

Having that goal in common with other researchers, such as Drs. Andrew Mellor and David Munn, is one reason Dr. Bingaman, who recently completed an immunology research fellowship and a renal and pancreas transplant fellowship in Maryland, decided to come to MCG.

Drs. Mellor and Munn reported in *Science* in 1998 that the fetus uses the enzyme, IDO—indoleamine 2,3-dioxygenase—to locally disable the mother's immune system and avoid rejection. They have since explored the potential of using the IDO mechanism to manipulate immune response in areas such as fighting tumors and HIV infection as well as transplanted organ rejection.

Dr. Mellor, Georgia Research Alliance Eminent Scholar in Immunogenetics, now directs the MCG Immunotherapy Center where researchers are exploring many different ways of manipulating the body's natural defense mechanisms to better fight disease. Dr. Bingaman has a faculty appointment in the Immunotherapy Center as well as the Department of Surgery.

"The immunology community here I would classify as really outstanding," he says. "In surgery, like in science, you are only as good as the people around you." He particularly relished the chance to work with good people on both sides of the street—the team transplanting kidneys and pancreases and research colleagues seeking better ways to help patients keep those organs.

"I would only want to do both," says Dr. Bingaman. "Surgery keeps you close to the patient. In surgery, there is some immediate gratification. Science is a bit of a dream deferred. But it's also the opportunity to come up with things that nobody has come up with before, novel approaches. I can think of something today and do it tomorrow. You would never want to do that in surgery. I think the two fields go together beautifully."

—Toni Baker

Breaking Down Barriers

DONATION ENSURES STATEWIDE TRANSPLANT ACCESS

The Carlos and Marguerite Mason Trust has granted \$1.1 million to the MCG comprehensive transplant program to fund satellite transplant evaluation and treatment centers, and expand living related and unrelated donor kidney transplantation.

The Mason Trust will meet the needs of those in rural communities without transplant services as well as educate the public about the importance of living related and unrelated donor kidney transplantation. Over the next three years, MCG Health System will establish the Carlos and Marguerite Mason Trust Satellite Transplantation Evaluation and Treatment Centers in several different sites around the state. These centers will act as hubs to help provide transplant evaluation and follow-up for patients living in rural areas.

“According to the National Kidney Foundation, more than a million Georgians suffer from some form of chronic kidney disease,” said Dr. James Wynn, chief of Transplant Surgery at MCG Health System. “In addition, more than 7,000 Georgians are dependent on dialysis. For many of these patients who live in underserved rural areas, there may be significant barriers to transplantation, from lack of services to inability to travel. Our program proposes to break down these barriers to help ensure that all Georgians in need of kidney transplants will receive that care.”

MCG physicians will travel to and from the centers and will partner with the patients’ own physicians. All aspects of a patient’s care will take place in the

center, with their only travel being to Augusta for the actual transplant. “Patients will benefit from the center’s collaboration with area physicians in pre- and post-transplant care,” said Dr. Adam Bingaman, a kidney transplant surgeon at MCG Health System.

A component of the centers is providing education for families, the community and medical staff on the importance of living donation. Living donation of a kidney, either from family members or unrelated volunteers, increases opportunities for those in need of kidney transplants and offers better long-term outcomes for recipients. In addition, thanks to advanced laparoscopic techniques for kidney removal, donors experience faster healing times, less pain, less blood loss and less scarring.

In recent years, higher rates of type II diabetes in minority patients has led to epidemic growth in kidney disease. However, while dialysis centers have sprung up across the state to meet this need, kidney transplantation has not kept pace.

“The result is that those on the waiting list for a kidney have to wait much longer for a kidney transplant than in previous years,” said Dr. Laura Mulloy, chief of nephrology at MCG Health System. “However, it is a fact that kidney transplants improve life expectancy when compared to remaining on dialysis, and that the best results come when a transplant is performed early on in the course of a patient’s disease and before a patient begins dialysis.” Of the four kidney transplantation centers in the

state, only one—the MCG comprehensive transplant program—is located outside of metropolitan Atlanta.

As MCG Health System moves forward in building an infrastructure for its transplant program, a final aim is to provide support for other types of transplants in the future, including heart transplants.

“Through these programs, we hope to double the rate of living donors and increase the number of rural transplant candidates on the waiting list by 10 percent annually, both over a five-year period,” said Dr. Wynn.

“The Mason Trust has funded a number of similar programs and research at MCG Health System, and we’ve had a strong, longstanding relationship with them as one of the nation’s top academic medical centers,” said George Atkins, a trustee with the Mason Trust. “The Mason Trust focuses on helping needy Georgians with human organ transplants and on funding research related to improvements in transplantation. The program presented by MCG Health System absolutely focuses on that goal.”

The Mason Trust was established in 1991 by Marguerite Fugazzi Mason in memory of Carlos Mason. By provision of Mrs. Mason’s will, the purpose of the trust is to support clinical endeavors and research for transplants of eyes, kidneys, hearts and other organs in the state of Georgia. Since 1993, the trust has invested more than \$7.6 million in MCG programs, facilities and services.

—Deborah Humphrey

Facts About Transplants

Editor's note: This information was excerpted from TransWeb.org.



MORE THAN 56,000 PEOPLE IN THE UNITED STATES ARE WAITING FOR ORGAN TRANSPLANTS.

APPROXIMATELY 2,800 PEOPLE IN THE UNITED STATES DIE EACH YEAR BECAUSE OF THE SHORTAGE OF ORGANS FOR TRANSPLANTATION.

BODY PARTS THAT CAN BE TRANSPLANTED INCLUDE THE KIDNEY, HEART, CORNEA, PANCREAS, TENDON AND LUNGS.

NO MAJOR WORLD RELIGION OPPOSES ORGAN DONATION.

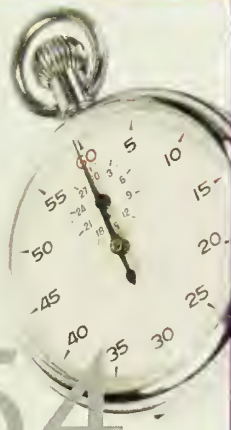
SIX LIVES CAN BE SAVED WHEN ONE PERSON AGREES TO DONATE HIS ORGANS.

THE MOST IMPORTANT STEP TO TAKE IF YOU WANT TO DONATE ORGANS IS TO TELL YOUR FAMILY. ORGAN DONOR CARDS ARE IMPORTANT BUT CAN BE OVERRIDDEN IN SOME STATES.

THE U.S. NATIONAL ORGAN TRANSPLANT ACT OF 1984 MANDATED THE ESTABLISHMENT OF A NATIONAL ORGAN PROCUREMENT AND TRANSPLANTATION NETWORK TO EQUITABLY AND FAIRLY DISTRIBUTE ORGANS.

A NEW NAME IS ADDED TO THE NATIONAL WAITING LIST FOR ORGANS APPROXIMATELY EVERY 18 MINUTES.

THE FIRST SUCCESSFUL HUMAN KIDNEY TRANSPLANT OCCURRED IN BOSTON, MASS., IN 1954 WHEN DR. JOSEPH E. MURRAY TRANSPLANTED A KIDNEY FROM ONE WOMAN TO HER IDENTICAL TWIN. DR. MURRAY RECEIVED THE NOBEL PRIZE IN MEDICINE FOR THIS ACCOMPLISHMENT.



1954

Confusionectomy

STUDENT INITIATIVE ENHANCES
COMMUNICATION WITH
LOW-LITERATE PATIENTS

Jo*, a 64-year-old with diabetes, high blood pressure and arthritis, takes six medications at different intervals daily. When asked about her medication, she can't answer which pill does what for her body. When asked what to do if she misses a pill, she responds, "I guess I'd take two the next time."

* Pseudonym

As bright as she is otherwise, Jo has only a fourth-grade education and is among the estimated 90 million U.S. adults who lack sufficient literacy skills to fully function in society.

When School of Medicine students Jeremiah Johnson, David Newton and Anupama Kathiresan learned that low literacy skills directly correlate with poor health, they took action on behalf of patients like Jo.

"The medical profession must always seek to better a patient's understanding about his health care, and a significant amount of that understanding starts in the doctor's office," said David. "With chronic diseases on the rise, it will become even more important for patients to understand how to manage their health over longer periods of time."

Last year, the students teamed with School of Medicine Associate Dean for Curriculum T. Andrew Albritton, University of Georgia pharmacy student Loretta Walborn, MCG School of Dentistry student Damion Rockwell and Augusta Technical College to develop and implement a program helping low-literate Augusta-area residents improve their health knowledge and communication skills.

Low health literacy – a limited ability to read, understand and act on health care information – is no reflection on intelligence, the students stressed. Groups at highest risk are the elderly, ethnic minorities, recent U.S. immigrants, people who speak English as a second language, low-income individuals and the unemployed. Because people with low health literacy often cannot understand discharge instructions, pill bottles and insurance applications, the problem contributes an estimated \$50 billion a year to health care

costs, according to the National Academy on an Aging Society.

"We wanted to develop a program to empower patients to take a more active role in the management of their own health," said Jeremiah. "As future health care professionals, we have taken the oath to do no harm; however, we believe that it is our responsibility as compassionate human beings to go beyond that oath and actively improve the health of our patients in any way possible."

Their initiative, Project MCG H.O.S.P.I.T.A.L. – Health Outreach, Screenings and Prevention Integrated into Teaching Adult Literacy – was one of eight in the nation to receive a \$30,000 Association of American Medical Colleges and Pfizer Medical Humanities Initiative grant.

"Effectively communicating with our patients is essential for quality health care," said Dr. Albritton.

"Project MCG H.O.S.P.I.T.A.L. will have a profound impact on the care of patients while educating our students to be more effective communicators and better physicians."

Since July, the students have trained their successors and restructured the program to ensure its longevity. Committees of second-year medical students oversee curriculum development, publicity and fundraising. In addition to staffing health screenings in the Augusta area, they've taught classes on medications, oral

health, hypertension, communication skills and women's health at Georgia Regional Hospital, Hope House for Women, Community Mental Health and Augusta Technical College.

"It's been a great opportunity to learn what kinds of questions people have when they come to the doctor," said Kim Rathbun, a second-year medical student overseeing the second group of Project H.O.S.P.I.T.A.L. participants. "The small classroom settings provide lots of discussions. You get to see what they understand and what they ask questions about, which will help me communicate better with my patients."

To further expand their efforts, Anupama and her colleagues initiated MCG Health Literacy Day in October as part of Health Literacy Month. Dr. Mark Williams, professor of medicine at



ANUPAMA KATHIRESAN (FROM LEFT),
JEREMIAH JOHNSON AND KIM RATHBUN

Emory University and a national leader in the health literacy movement, taught MCG faculty and administrators how to build health literacy into their curricula and how to effectively communicate with low-literate patients. He also showed videotaped interviews with patients, including Jo, to reinforce the far-reaching implications of low health literacy.

Dr. Williams' lectures "helped me to reinforce some things with my patients. Some of the examples brought my understanding to a new level," said Dr. Walter Moore, associate dean for graduate medical education. "In the patient examples presented, I immediately recalled a patient who [demonstrated] fear and shame when I asked for his signature. After some further conversation and explanations, we agreed that his X for a signature was acceptable."

"I'm extremely impressed with the support MCG has given to health literacy education," said Dr. Williams. "I've been giving health literacy lectures to medical students and residents across the country for 10 years, and MCG has given the most extensive effort to educate. I think that's really a tribute to the work of these medical students. They drove all the way to Atlanta to pitch this idea of spending a day here to me, which was really impressive."

Dr. Williams' lecture was recorded so future MCG residents, students and faculty can learn how to recognize and address low literacy in patients. Health literacy also is being incorporated into the School of Medicine and School of Dentistry curricula, the MCG Resident Core Curriculum Conference series and MCG Health System initiatives.

"The most common questions I get are, 'How do we afford this? How can we get the resources to educate low-literate patients on basic health fundamentals and healthy lifestyle choices?'" said Dr. Williams. "The answer I give is that we can no longer afford not to. Regardless of the type of health science education – nursing, dentistry, medicine – health literacy awareness needs to be taught to all students in the field as a part of standard patient communication courses."

–Ellen Gladden

INTERNET RESOURCES FOR HEALTH CARE PROFESSIONALS

www.askme3.org

A Web site designed by the Partnership for Clear Communication, a coalition of national organizations working to promote awareness and solutions regarding low health literacy and its effect on health outcomes.

www.amafoundation.org

American Medical Association Foundation Web site. Click "Health Literacy" link.

www.pfizerhealthliteracy.com/improving.html

Pfizer Clear Health Communication Initiative includes a "Words to Watch" list of synonyms for health terms often considered confusing for low-literate individuals.

To further expand their efforts, Anupama and her colleagues initiated MCG Health Literacy Day in October as part of Health

Literacy Month. Dr. Mark Williams, professor of medicine at Emory University and a national leader in the health literacy movement, taught MCG faculty and administrators how to build health literacy into their curricula and how to effectively communicate with low-literate patients.





A Family Affair

MCG BROADENS COMMITMENT TO PATIENT AND FAMILY CENTERED CARE

Edyth Martin's daughter, Adrienne, was well into her first pregnancy in 1992. What a joyous time for the grandmother-to-be.

Then, tragedy struck. Adrienne was stabbed three times in the back and Edyth's grandson, Joey, was born with severe disabilities. Joey has reactive airways disease, seizure disorder, cerebral palsy, mental retardation, gastro-esophageal reflux, obstructive hydrocephalus, scoliosis, hypothyroidism and more. At last count, Joey is taking 17 different medications daily.

"We have been patients at the MCG Children's Medical Center since Joey's birth," said Ms. Martin. "When you spend as much time here as [my family and I do], you want to make sure that it is as comfortable as possible. That's why I have been actively involved in all aspects of MCG's patient and family centered care philosophy."

MCG Health System for years has embodied that philosophy, in which health care providers partner with patients and families to plan, deliver and evaluate

health care. But the university went a step further last fall, forming a Center for Patient and Family Centered Care to integrate the philosophy into its educational and research programs.

"This new center is central to our mission," said MCG President Daniel W. Rahn. "Whether we are teaching future health care providers, looking for better ways to find and treat disease or providing health care, MCG exists for patients and families."

The center incorporates principles of patient and family centered care into all MCG academic programs at the graduate and professional level, and studies how the philosophy affects clinical quality, patient safety, cost-effectiveness and patient satisfaction, according to Patricia Sodomka, director of the center and senior vice president of Patient and Family Centered Care for MCG Health System.

"The creation of a patient centered philosophy of care is one of the six quality aims of the Institute of Medicine, which is

composed of the national thought leaders engaged in quality improvement in this country," said Ms. Sodomka.

She is well-versed in the philosophy, having overseen its implementation during the 1990s in MCG's clinical facilities. The principles of patient and family centered care are:

- TREATING PATIENTS AND FAMILIES WITH DIGNITY AND RESPECT
- PROVIDING CLEAR, COMPREHENSIVE INFORMATION IN WAYS THAT ARE USEFUL AND EMPOWERING
- CREATING OPPORTUNITIES FOR PATIENTS AND FAMILIES TO PARTICIPATE IN WAYS THAT ENHANCE THEIR CONTROL AND INDEPENDENCE
- ENSURING THAT COLLABORATION IS INHERENT IN POLICIES, PROGRAMS, EDUCATION AND DELIVERY OF CARE

"MCG Health, Inc. is a recognized national leader in developing practices and designing facilities that are patient and family centered," said Ms. Sodomka. "My appointment to the position of senior vice president of Patient/Family



PATRICIA SODOMKA

Centered Care, perhaps the only such position in the nation, is a recognition of our unique approach and commitment to this philosophy of care.”

The health system began patient and family centered care efforts with the design of the new Children’s Medical Center, forming 24 committees that welcomed family involvement. Ms. Martin, whose grandson’s medical problems spurred her interest in health care, joined the CMC Family Advisory Council eight years ago and is currently its chair. Also active in several other committees, she is one of many who participate in MCG’s initiatives for patient and family involvement.

ADVISORY COMMITTEES

More than 130 patients and families serve as advisors in some capacity to help direct and design services. For example, patients serve as members of the Patient Safety Committee. During a meeting of this group, patients said they felt intimidated by health care providers and, as a result, hesitated to ask questions or speak up about matters affecting the quality of their health care. The Speak Up Campaign emerged from this interaction. The campaign urges

patients to take a more active role in their health care by asking questions, being aware of their medications and designating an advocate.

“This campaign helps prevent medical errors by empowering better-informed patients,” Ms. Sodomka said. “It is a great example of ongoing communications with our patients.”

Patient and family advisors are also encouraged to help plan and design new or updated facilities. Patient input is reflected in the design of the CMC, the Breast Health Center, the Neurosciences Unit, ambulatory surgery services, the Senior Center, a new outpatient cardiology facility, and Gamma Knife and PET-CT areas, among others.

OR Buds

OR Buds (Operating Room: Better Understanding During Surgery) pairs volunteer parents with the families of children having surgery in the Children’s Medical Center. The experienced parents provide support and guidance, helping to reduce adult stress, which provides a less stressful environment for the child.

“OR Buds is the outgrowth of parents telling us that nothing is more stressful and traumatic than the point at which they have to hand off their child to the anesthesiologist,” Ms. Sodomka said. “The OR Buds representative remains with the family to care for them while the medical team is doing all it can for the child. We believe it is important for a family to remain a family, even when a child is hospitalized. The whole family is a priority.”

OR Buds participants go through significant training and orientation to become familiar with the entire surgical process so they are well-prepared to answer any questions or concerns the family might have. And, because they have a child with a medical condition or one who has gone through surgery or a special procedure, their own experiences prepare them to understand the anxiety and fear associated with surgery.

NEUROSCIENCE UNIT ADVISORS

The Neuroscience Unit is the first to be designed as a patient and family centered care unit for adult patients. Patient advisors helped plan and implement the unit, even interviewing and selecting the physicians and nurses hired to staff it.

The unit includes a large family lounge area complete with child-sized furniture so that even the smallest family member will be comfortable. All of the unit’s 21 patient rooms are large and private, enabling family members to sleep over. Other amenities include a consumer resource area with computers and a host of health and wellness literature.

“But beyond the aesthetics,” Ms. Sodomka said, “we have also improved the environment of care through staff education and training. As a matter of fact, we have achieved a radical culture change. I have heard the nurse manager, Roslyn Marshall, say on more than one occasion, ‘Visitors aren’t an issue for us in the neuro intensive care unit because we don’t have visitors. We have families, and they are an integral part of the health care team.’”

—Deborah Humphrey

Dr. S. Jay Hazan

'The Greatest Satisfaction is Not Monetary'

Dr. S. Jay Hazan remembers when a warm lunch at an Augusta cafe cost 39 cents and a walk to Krispy Kreme could yield three doughnuts for 10 cents.

He rented a room in a house close to campus during medical school, and the owner accommodated his late hours by leaving him midnight snacks of avocado and grapefruit slices on lettuce.

The culture in 1949 Augusta was "entertaining and interesting for a Yankee from up north. I learned to love fried chicken, fried catfish and hushpuppies," said the first-generation American who was raised on the Middle Eastern, Greek and Turkish recipes his parents brought from Turkey.

The second of five children raised modestly in east Harlem, N.Y., Dr. Hazan was inspired to become a physician at an early age.

"Our family physician was a frequent visitor caring for the five of us," he said. "He'd stay for a cup of Turkish coffee to explain medications or treatments. I had the good fortune to meet up with him again at a medical convention and to recall how his visits influenced my interest in medicine. It was a great moment for both of us."

After serving in World War II, Dr. Hazan earned bachelor's and master's degrees, then enrolled in medical school at MCG. In an arrangement that included a \$100 stipend and free tuition, he went to school part time while working with Dr. Sam Singal, Charbonnier Professor Emeritus in the

Department of Biochemistry and Molecular Biology.

"We used to work until 10 or 11 at night because we were really excited about what we were doing," said Dr. Hazan. "Dr. Singal did important work with radioactive materials in the separation of DNA and RNA. I owe a big thank you to Dr. Singal for allowing me to work with him for four years and to the medical school for allowing me this privilege – and it was a privilege."

His father's health necessitated Dr. Hazan's eventual transfer to the University of Southern California, but he considers MCG a beloved alma mater.

"The greatest satisfaction we can receive is in helping people and doing a good job caring about them"

His wide-ranging career has included private practice, pharmaceutical work, a National Institutes of Health Mental Health Postdoctoral Fellowship and psychiatry as a U.S. Army colonel.

Today, he calls Las Vegas home and enjoys traveling the globe (at press time he was in Thailand), visiting family in Los Angeles and serving as a medical consultant in court cases.

"I really enjoyed everything I did. Looking back, I'd do it exactly the same way. The real joy I think I had as a physician was helping people. And you do that in research as well, just in a different way."



DR. S. JAY HAZAN

In gratitude to MCG for setting his career in motion, he joined the MCG Milton Antony Guild by funding over \$1 million in

scholarships for third- and fourth-year medical students who demonstrate academic excellence and an exemplary patient-centered, compassionate and humanitarian heart.

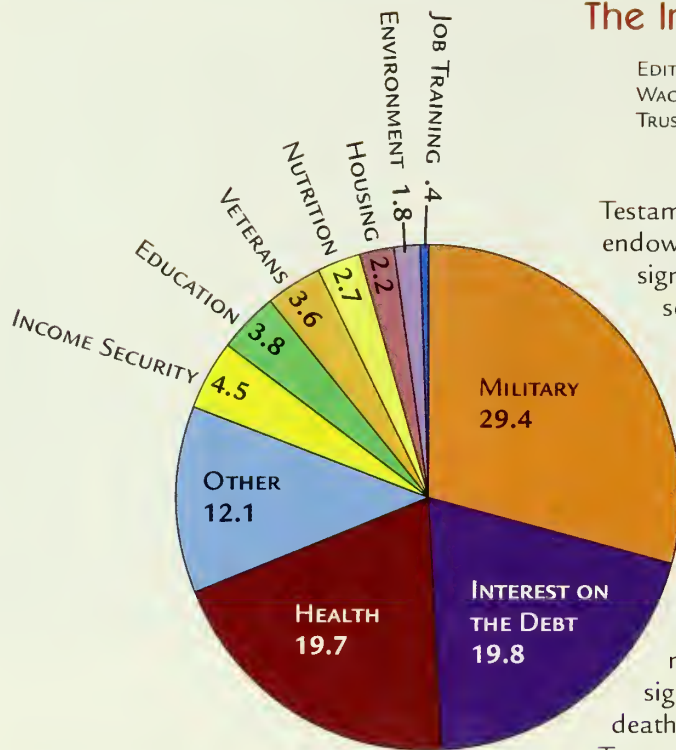
In addition to his financial support, he counsels the students to follow their hearts. "I'm a firm believer in fate. If you do what you love, things will develop that you thought would never have been possible. The greatest satisfaction is not monetary. The greatest satisfaction we can receive is in helping people and doing a good job caring about them."

–Ellen Gladden

PLAN YOUR GIVING

The Importance of Testamentary Gifts

EDITOR'S NOTE: EMILY CUMMINS, A PLANNED GIVING ADVISOR AT THE WACHOVIA CENTER FOR PLANNED GIVING, A DIVISION OF WACHOVIA TRUST, CONTRIBUTED TO THE INFORMATION IN THIS ARTICLE.



Testamentary gifts are critical to the growth of our endowment, and income from the endowment contributes significantly to our operating budget. In turn, this serves to support advanced research and clinical care in addition to faculty salaries, scholarships and other strategic goals.

Many of us are surprised to realize that we are never too young to consider a testamentary gift. Over 50 percent of us ultimately pass away without writing a will or establishing an estate plan. As a result, we are unable to influence decisions related to the ultimate disposition of our property, the caretaking of family members and pets, and charitable support of our preferred nonprofit organizations. Even worse, an estate is significantly depleted by federal and state taxes at death.

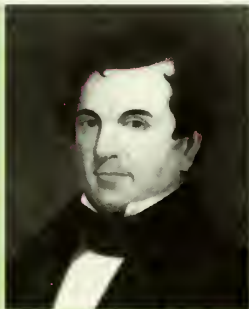
Taxes are often referred to as “involuntary philanthropy” because your hard-earned assets are applied pursuant to government’s current priorities rather than based on your wishes. You may disagree with the government’s spending choices and wish to exert more influence. For example, according to the 2005 federal budget, less than 4 percent of the average tax dollar supports education at all levels. The adjoining pie chart illustrates how the average tax dollar is spent.

As public funding diminishes, private support becomes even more critical to schools such as the Medical College of Georgia. A testamentary gift specifically designates MCG as a charitable beneficiary of your estate. You may choose to support MCG with a designated dollar amount or with assets other than cash, and you may wish to remain anonymous or endow a scholarship, building or other generous gift with your family name. We offer a variety of ways to accommodate your interests and preferences.

Developing a family legacy not only benefits future generations of students and patients, it brings together your family with the united purpose of philanthropy. Instead of accidentally turning into an “involuntary philanthropist” due to a sizable tax bill, we encourage you to consider “voluntary philanthropy” by means of a testamentary gift. For more information, contact Tony Duva, director of planned giving, at 800-869-1113 or aduva@mcg.edu.

Honoring MCG’s Founder

MCG supporters can join the Milton Antony Guild by pledging \$250,000 or more to MCG through a will, trust and/or a non-binding declaration of intent. Members’ names will be included on a campus memorial garden statue and plaque. Donors who contributed \$250,000 or more within the last several years will be grandfathered into the Founding Members Program. For more information about the Milton Antony Guild or other means to plan your giving, contact Tony Duva at 800-869-1113 or aduva@mcg.edu.



INFORMATION IN THIS ARTICLE IS NOT INTENDED AS LEGAL ADVICE.
FOR LEGAL ADVICE, PLEASE CONSULT AN ATTORNEY.
TAX LAWS ARE SUBJECT TO CHANGE.

MCG to Celebrate Homecoming April 21-24

The Medical College of Georgia will host the following activities for faculty, students and alumni during its 2005 homecoming celebration April 21-24.

Brochures will be mailed to alumni with registration information. For more information, contact Cheryl Lovett in the Alumni Affairs Office at 706-721-3430 or clovett@mcg.edu.

THURSDAY, APRIL 21

School of Graduate Studies Alumni Association Board Meeting
 noon, MCG Alumni Center

FRIDAY, APRIL 22

School of Dentistry Marvin Goldstein Lectureship
 7:30 a.m., Radisson Riverfront Hotel

School of Dentistry Alumni Association business meeting
 8 a.m., Radisson Riverfront Hotel

Campus history tour/lunch
 noon, MCG Alumni Center

School of Allied Health Sciences Alumni Association Luncheon
 noon, Old Medical College

School of Dentistry Alumni Association/Goldstein Luncheon
 noon, Radisson Riverfront Hotel

Hospitality Suite
 3-5 p.m. Radisson Riverfront Hotel

School of Medicine Dean's Reception
 5 p.m., Old Medical College

School of Medicine Alumni Association Banquet
 6 p.m., Old Medical College

School of Dentistry Alumni Association Reception
 6 p.m., Radisson Riverfront Hotel

School of Graduate Studies Alumni Association/Distinguished Alumnus Award Presentation/Lecture
 6:30 p.m., Alumni Center

SATURDAY, APRIL 23

Distinguished Alumnus Awards Breakfast
 7:30 a.m., President's Home

School of Medicine Alumni Association board meeting
 9 a.m., MCG Alumni Center

School of Nursing Dean's Reception
 10 a.m., School of Nursing

MCG Foundation Board Meeting
 11 a.m. to 12:15 p.m., Alumni Center

President's Cookout
 12:30 p.m., President's Home

Hospitality Suite
 3-6 p.m., Radisson Riverfront Hotel

School of Dentistry Reunion Dinners
 6 p.m., Radisson Riverfront Hotel

School of Medicine Reunion Dinners
 6 p.m., Radisson Riverfront Hotel

School of Nursing Homecoming Dinner honoring the classes of 1958-71 (Dean E. Louise Grant's era) and 1975 30-year class reunion
 6:30 p.m., Pinnacle Club

SUNDAY, APRIL 24

School of Medicine Alumni Association Memorial Service
 10:30 a.m., Old Medical College

School of Medicine Alumni Association Emeritus Club Luncheon
 11:30 a.m., Old Medical College

Addresses of Functions

MCG Alumni Center
 919 15th Street

Radisson Riverfront Hotel
 Two Tenth Street

Old Medical College
 598 Telfair Street

President's Home
 920 Milledge Road



CLASS NOTES

School of Allied Health Sciences

Donald Biggerstaff (*bachelor's and master's degrees in medical illustration, 1969 and 1970*), received the 2004 Lifetime Achievement Award of the Association of Medical Illustrators, the highest individual award the association bestows. The award honors a professional member whose life, work and accomplishments have significantly contributed to the profession and to fellow illustrators. Mr. Biggerstaff is a professor of surgery and director of the Plastic Surgery Institute at the Southern Illinois University School of Medicine.

Patricia H. Willis (*bachelor of science in physical therapy, '77*) has been reappointed to Georgia's State Board of Physical Therapy. Ms. Willis lives in Stone Mountain, Ga., and is a professional contract physical therapist for Caduceus Occupational Medicine. She was previously adjunct professor of physical therapy at North Georgia College and University and served as director of the physical therapy department of Douglas General Hospital physical therapy department. Ms. Willis is a member of the Physical Therapy Association of Georgia, the American Physical Therapy Association and the Federation of State Boards of Physical Therapy. In addition to her MCG degree, she earned a master of science degree in health professions management from Georgia State University. She and her husband, James, have five children.

Lola Sicard Rosenbaum (*bachelor of science in physical therapy, '86*), has been appointed by Georgia Gov. Sonny Perdue to the State Board of Physical Therapy. She is certified by the American Physical Therapy Association as a clinical specialist in orthopaedic physical therapy and is a physical therapist at the Cantrell Center for Physical Therapy and at the Houston Medical Center in Warner Robins, Ga. She recently received the Geriatrics Section Excellence in Research Award and earned a master's degree from the University of Florida. She and husband Donald have two children.

School of Dentistry

Dr. Nick J. Minden ('82), associate professor of restorative dentistry at the University of Florida College of Dentistry, has been named a fellow of the American College of Dentists, an honor bestowed to approximately 3.5 percent of dentists.

Obituary

Dr. Edward B. Sosebee ('77), Kingsland, Ga., died June 2. Dr. Sosebee practiced general dentistry in Brunswick, Ga. Survivors include wife Sandra and sister Janet S. Adams of Kennesaw, Ga.

School of Graduate Studies

Ethlyn Gibson (*M.S.N., '97*), community outreach liaison for MultiCare Health System in Tacoma, Wash., spoke before the Washington State Senate Joint Select Committee on Health Disparities on Dec. 1 about stroke and heart disease impacts in communities of color. She was selected by state Sen. Rosa Franklin to address the initiatives MultiCare Health System has helped implement in its community.

School of Medicine

Dr. Alex Kelly ('38), 87, participated in the Pentagon's POW/MIA Recognition Day ceremony Sept. 14 in Washington, D.C. Dr. Kelly spent three and a half years as a prisoner in Japanese prison camps in the Philippines and Japan during

CLASS NOTES

World War II. He was a first lieutenant serving as the battalion surgeon for the 57th Infantry Regiment "Philippine Scouts" when captured.

Dr. William E. (Ted) Coleman ('51), a retired family practice physician in Hawkinsville, Ga., volunteers for the Hawkinsville-Pulaski County Arts Council and is an emeritus trustee of the Taylor Regional Hospital. He also is an active Rotarian and president of the Middle Georgia Dulcimer Club. He has written a 43-page history of the now-closed R.J. Taylor Memorial Hospital, the forerunner to Taylor Regional. He and wife Jean have two children (Ted Jr., a psychiatrist in Albany, Ga., and daughter Candee Wilson) and three grandchildren.

Dr. John Rhodes Haverly ('53) received an honorary doctoral degree from Georgia State University during the university's Aug. 8 commencement. The doctorate honors his contributions to the university's academic and research excellence.

Dr. Dale Browne ('82) is a professor of pediatrics and surgery-otolaryngology at Wake Forest University School of Medicine. He completed his fellowship at the University of Zurich in Switzerland and is board-certified in otolaryngology.

Dr. Christopher Cates ('82) is director of vascular intervention at Emory University Hospital and Emory Crawford Long Hospital in Atlanta. The Emory Heart Center is one of 30 national training sites for carotid stenting.

Dr. Anthony Clary ('89), an obstetrician/gynecologist in Elizabethtown, N.C., has joined Dr. Martyn Woleben as the nucleus for Bladen County Hospital's new Women's Health Specialists for Bladen County, which opened in August.

Obituary

Dr. Julian W. Swann ('59), who practiced dermatology for 37 years in Atlanta, died July 10 at age 72.

School of Nursing

Dr. Mary Welborn ('60) has been named dean of Texas A&M University's new College of Nursing and Health Sciences.

Dr. Debra Hatmaker (*master of science in nursing, '86*) has been named president of the Membership Council of the Center for American Nurses, an associate organizational member of the American Nurses Association. She will serve for two years. Dr. Hatmaker is chief programs officer for the Georgia Nurses Association, a staff position she accepted after serving as the association's president from 1999-2002.

Attention, Alumni

Please keep us posted on personal and professional achievements by dropping us a line. Remember to include your degree, class year and contact information. Also, please let us know if your address has changed. Send information to:

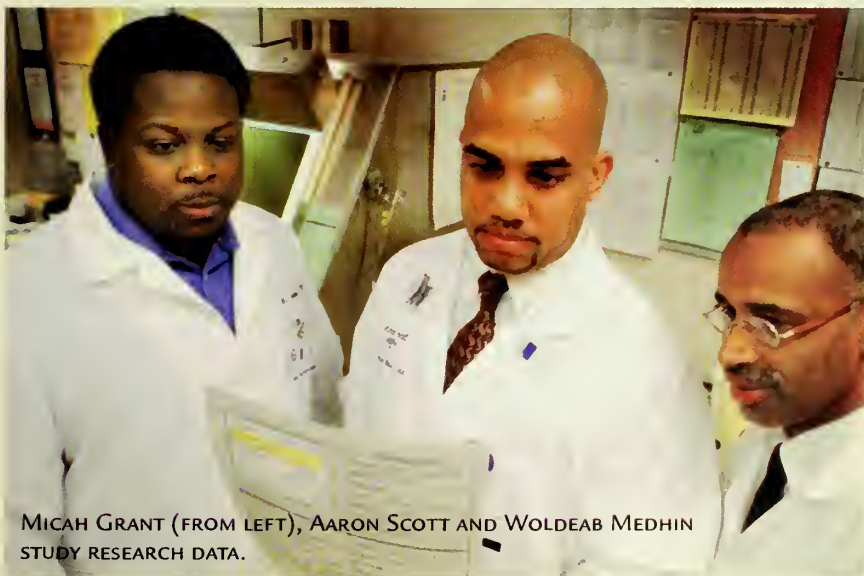
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Students Discover Medicinal Role for Pancake Mix

Chicken liver may seem like an odd component of a medical procedure, but for thousands of patients over the past generation, the cuisine has been doctor's orders to help diagnose gastrointestinal disorders.

Perhaps not for much longer, though, based on the results of a recent Medical College of Georgia School of Allied Health Sciences

"To diagnose digestion-related disorders, a radioactive tracer called Tc99m sulfur colloid is injected into chicken liver and fed to the patient," said Mr. Scott, who along with Mr. Grant and Mr. Medhin is earning MCG certification in nuclear medicine technology via distance-learning at the Gwinnett University Center in Lawrenceville, Ga. The tracer goes to the target organ and



MICAH GRANT (FROM LEFT), AARON SCOTT AND WOLDEAB MEDHIN
STUDY RESEARCH DATA.

student project.

Micah Grant, Woldeab Medhin and Aaron Scott, students in the School of Allied Health Sciences' nuclear medicine technology program, recently were assigned to review and compile scientific data in their field, in which health practitioners use radioactive pharmaceuticals to help assess organ function and diagnose disease. But the students wanted to go a step further and actually contribute to the literature.

The students knew just what their starting point would be: chicken liver.

can then be imaged with a Gamma camera, which takes pictures of the radiation photons emitted by the tracer.

Chicken liver is the delivery agent of choice because its proteins bind with sulfur colloid at a rate of about 92 percent. The radioactive tracer then provides clear pictures of the organ or organs being assessed.

"The problem is that the 'delicacy' isn't palatable to many people even under the best of circumstances, and many individuals observe cultural practices that make chicken liver an impossible choice," said Mary Anne



Owen, program director of nuclear medicine technology. "The option for a palatable, diagnostically accurate vegetarian meal is a much-needed alternative."

Options such as grits and oatmeal have been used, but with much less reliable results because their binding rate is so much lower, Mr. Scott said. He and his classmates rose to the challenge when an Emory University radiologist, Dr. Rahguueer Halkar, asked them to help him find a vegetarian food with a high-enough binding rate to use it as a reliable substitute for chicken liver.

The students knew they were looking for a food high in protein, but other than that, they anticipated a largely trial-and-error search. Incredibly, they found what they were looking for on their first try.

"We thought we might actually have to develop a product, but we

-CONTINUED

found what we were looking for right on the grocery store shelf," Mr. Scott said.

The product, Carborite Pancake Mix by the company, Carbolite, produces soy-based pancakes when mixed with water.

"We followed the product directions, then mixed it with sulfur colloid and made the pancakes on the griddle," said Mr. Scott. "Sulfur colloid is tasteless, odorless and colorless, so it doesn't affect the taste of the pancake."

But does it bind effectively enough to produce clear images of organs? Yes.

"We found that the binding rate is 97 to 98 percent—higher than that of chicken liver," Mr. Scott said. He presented the findings at the Southeast Chapter of the Society of Nuclear Medicine annual meeting Sept. 9-12 in Clearwater, Fla. He and his classmates also plan to test their product on volunteer gastric patients, using the pancake for the first test, then repeating the test two days later with chicken liver and comparing the results.

"This better, and better-tasting, alternative could have global implications," Mr. Scott said.

Ms. Owen said the project reflects not only the students' initiative but the importance of the department's emphasis on research. "MCG's undergraduate nuclear medicine technology program matches students with mentors from MCG and Emory University, adding a much-needed research component not generally available within the entry-level nuclear medicine curriculum," she said. "This is a wonderful example of our students taking full advantage of the resources we make available and actually improving patient care in the process."

— Christine Hurley Deriso

Dr. Zuniga Named Director of Public Health Program



Dr. Miguel A. Zuniga, assistant professor of health policy and management in the Texas A&M Health Science Center's School of Rural Public Health, has been named program director of a new Medical College of Georgia public health program.

Dr. Zuniga, who began Jan. 1, will oversee the program offering a master of public health degree with a major in health informatics. The program, part of a University System of Georgia strategic plan for public health education, is housed in the Department of Health Informatics in the MCG School of Allied Health Sciences.

"Dr. Zuniga is exceptionally qualified to lead this very important program," said School of Allied Health Sciences Dean Shelley Mishoe.

He earned a medical degree from the National University of Honduras, a master's degree in health administration from Tulane University and a Ph.D. in public health and health services research from Tulane. He completed a Fulbright Scholarship from 1988-93 and is a member of the Eta Chapter of Delta Omega, an honorary public health society.

"The appointment is particularly important in light of our country creating an infrastructure to optimize information technology in our health care system," said Dr. Carol Campbell, chair of the Department of Health Informatics. "This discipline has become a vital component of health care."

The program will prepare students to improve the health of populations by managing health organizations and health information systems in hospitals, health maintenance organizations, clinics, public health departments and other health-related institutions.

Dr. Zuniga's wife, Dr. Genny Carrillo-Zuniga, also has joined the MCG faculty to teach some of the program's core courses. Dr. Carrillo-Zuniga, an instructor and senior research associate at Texas A&M, earned a medical degree from the University of Yucatan and a master of sciences degree, master of public health degree and doctor of science degree all from Tulane University. She is a member of the Eta Chapter of Delta Omega.

Occupational Therapists Named to Boards

Two faculty members in the Department of Occupational Therapy have been appointed to American Occupational Therapy Specialty Boards.

Dr. Kathy P. Bradley, associate professor and chair of the department, will serve a two-year term on the specialty panel for cognition. Dr. Susan Stallings-Sahler, professor, will serve a two-year term on the specialty panel for pediatrics.

The boards establish criteria for advanced knowledge, continuing competence and professional development for occupational therapists seeking advanced practice certification.

MCG's Department of Occupational Therapy, housed in the School of Allied Health Sciences, offers master's degrees in the discipline of helping people prevent, lessen or overcome impairments leading to disability and optimize health and wellness.

Treatment Offers Hands-On Pain Relief

A technique that stretches the layers of tissue surrounding muscles and organs is an often-effective treatment for pain and dysfunction, according to a Medical College of Georgia occupational therapist.

"Myofascial release is a very holistic approach that incorporates the whole body," said Rob McAlister, assistant professor of occupational therapy on MCG's Columbus campus and recipient of the Georgia Occupational Therapy Association's 2004 Outstanding Occupational Therapist Award. "The treatment is hands-on and intuitive."

Trauma, postural compensation, surgical scars and sports injuries may tighten myofascial tissues, potentially resulting in pain and lack of mobility in some area of the body, Mr. McAlister said.

Effective treatment depends on evaluating the whole body rather than local symptoms or areas of pain, he explained. The myofascial system is interconnected from head to toe. Its fibers run in various directions, accommodating changes in muscle tension and stretching. Damage to the system in one area of the body, Mr. McAlister said, can cause pain in a seemingly unrelated area.

Mr. McAlister, who teaches national myofascial release seminars and practices the technique, said the first step in treatment is to observe the patient and assess his lifestyle. Does he slump or lean to one side? Has he recently been in an accident? Does he have old scars? Does his work require repetitive motion or prolonged periods of strained posture? Based on the information, the patient sits or



ROB McALISTER DEMONSTRATES MYOFASCIAL RELEASE.

lies down comfortably while a therapist uses his hands to stretch the myofascial tissue.

"It's a maintained stretch of two to five minutes," Mr. McAlister said. "The intensity varies depending on the level of fascia you target."

The technique somewhat resembles massage because of the therapist's use of upper-body strength to apply gentle pressure to different body parts, but it is distinctly different, Mr. McAlister said. But as with massage, patients generally become very relaxed during the procedure and may report immediate pain relief.

Sessions last about 50 minutes each. "I usually complete the treatment within three months," Mr. McAlister said. "If I don't get results by the fifth visit, I don't continue. But almost all the patients I've seen have experienced pain relief and improved mobility."

He supplements the treatment with education, counseling patients about the importance of diet, exercise, good posture and stress relief.

Myofascial release has become well-enough established in the medical community that some physicians refer patients to occupational or physical therapists for the treatment, Mr. McAlister said.

"It's hard to quantify the benefits of this treatment using traditional research techniques because so many variables are involved," he said. "But I urge people to keep an open mind. Skepticism is healthy unless you're not open-minded. People who experience this technique say they feel something different going on that they've never felt before. They express considerable satisfaction along with pain relief and a better quality of life."

— Christine Hurley Deriso



JEANNINE GUION

Opportunities Vast for Physician Assistants

Jeannine Guion always knew she wanted to work in health care, but her career goal didn't take shape until after she earned a biology degree from North Carolina State University.

"I got to know some physician assistants and thought that sounded like a great opportunity," said Ms. Guion, an instructor in the Medical College of Georgia Department of Physician Assistant.

She completed Duke University's physician assistant program while earning a master's degree in health science, then worked in emergency medicine for several years before moving into academia. Her career has surpassed all her expectations.

"It's everything I thought it would be and more," she said.

"There are lots of career paths for PAs. I loved working in emergency medicine and I love teaching. I never thought I would be in academia, and here I am."

As the mother of two small children, she also appreciates the discipline's flexibility. "I could work eight hours a week or I could work 80 hours a week," she said. "You can really tailor your career to your lifestyle, and you don't have to limit your work to a specific specialty. A PA gets the joy of practicing patient-oriented care in a knowledge-intensive career and can do so in various areas of medicine."

Physician assistants' duties include assisting physicians in patient care, obtaining medical histories from patients, performing physical exams, ordering and interpreting diagnostic tests, assessing and managing common illnesses, performing minor procedures,

assisting in surgeries, educating patients about wellness and counseling patients and their families.

"Physician assistants develop long-term relationships with patients and are in an excellent position to optimize their health and minimize risk factors for disease," Ms. Guion said.

— Christine Hurley Deriso

Respiratory Therapy Students Win National Awards

Two Medical College of Georgia respiratory therapy students have received American Association of Respiratory Care scholarships.

Latrell Hays received the 2004 National Board for Respiratory Care/Applied Measurement Professionals Inc. Robert M. Lawrence, M.D. Education Recognition Award. The \$2,500 award goes to an academically outstanding third- or fourth-year baccalaureate student in an accredited respiratory therapy program.

Christine Huynh received the 2004 Morton B. Duggan, Jr. Memorial Education Recognition Award. The \$1,000 award, named in memory of a leader in respiratory therapy, honors academic achievement and an original referenced paper on some aspect of respiratory therapy.

Respiratory therapy students nationwide are eligible to apply for both awards, which represent two of four undergraduate scholarships provided by the American Association of Respiratory Care. Both awards included an all-expenses-paid trip to the International Respiratory Congress in December in New Orleans.

"This is the sixth year in a row that a student from MCG has received an award from the American Association of Respiratory Care," said Dr. Randy Baker, chair of the MCG Department of Respiratory Therapy. "There isn't another program in the country that can make these claims. We're very proud of our outstanding students."

Founding School of Dentistry Dean Dies

Dr. Judson C. Hickey, founding dean of the Medical College of Georgia School of Dentistry and interim president of MCG in



1987-88, died Oct. 24 at age 78 at Augusta's Department of Veterans Affairs Medical Center.

"The Medical College of Georgia community is saddened not only by the loss of a remarkable leader, but by the loss of a friend," said MCG President Daniel W. Rahn.

"It is hard to describe the depths of people's love and affection for Dr. Hickey," said current School of Dentistry Dean Connie Drisko. "He was a great leader and a great gentleman."

Dr. Hickey was recruited from the University of Kentucky School of Dentistry to start a dental school at MCG in 1966. Already an internationally respected researcher and clinician, he moved to Augusta with wife Jean and immediately went to work establishing a school with the highest of standards, according to Dr. Drisko.

"He recruited faculty members who not only were excellent dentists, but excellent scientists as well," she said. "Most had advanced degrees in a field of basic science in addition to their dental degrees. But beyond their academic accomplishments, they exemplified the characteristic Dr. Hickey valued above all others:

altruism. The faculty members undoubtedly brought these qualities to the job, but they insist that Dr. Hickey brought out the best in them."

He also recruited the best and brightest students, she noted, collecting over 600 applications for 24 spots in the school's first class. As the first students graduated in 1973, they began canvassing the state with their expertise. "Suddenly, Georgia—which only a decade earlier had only one dentist for every 4,200 citizens—was becoming one of the most enviable states in the nation in the field of dentistry," Dr. Drisko said.

By the time Dr. Hickey retired from MCG in 1988 after serving as interim president of the university for a year, he had overseen the education of hundreds of dentists, the advancements of dozens of researchers and the vast improvement of dental services in Georgia and beyond.

"The bottom line is Jud had common sense, [encompassing] a sense of purpose, a sense of worth, a sense of community, a sense of fair play, a sense of humor, a sense of humility blended with a superb sense of timing and a sense of beauty," said Dr. Thomas J. Zwemer, MCG Vice President for Academic Affairs Emeritus, during a eulogy for his friend and colleague. "[He was] a giant of a man in my book."

"We extend our warmest wishes and most heartfelt condolences to his family, particularly his loving wife, Jean, who stayed by his side throughout a difficult and extended illness," said Dr. Drisko. "We hope his family finds comfort in the fact that Jud's legacy lives on. He is never far from our thoughts as we strive to perpetuate his commitment to excellence and altruism."

— Christine Hurley Deriso



HINMAN MEMBERS

DR. DAN DUNWOODY (FROM RIGHT), PRESIDENT OF THE HINMAN DENTAL SOCIETY, WELCOMED SCHOOL OF DENTISTRY DEAN CONNIE DRISKO, ASSOCIATE DEAN CAROLE HANES AND DR. TRAVIS WATSON AS NEW MEMBERS OF THE SOCIETY DURING ITS SEPTEMBER MEMBERSHIP MEETING.

Full Accreditation Renewed for School of Dentistry

The Commission on Dental Accreditation has renewed full accreditation for the Medical College of Georgia School of Dentistry following a site visit in November.

The commission, which operates under the auspices of the American Dental Association, is a peer-review mechanism that serves as the accrediting agency for dental schools nationwide. The commission “serves the public by establishing, maintaining and applying standards that ensure the quality and continuous improvement of dental and dental-related education and reflect the evolving practice of dentistry,” according to the ADA Web site. “The scope of the commission encompasses dental, advanced dental and allied dental education programs.”

The site visitors particularly lauded the MCG School of Dentistry’s integration of oral biology and science throughout the clinical curriculum, the entire admissions process and the successful recruitment and retention of under-represented minority dental students.

“We received no recommendations in the predoctoral program,” said School of Dentistry Dean Connie Drisko. “This is an outstanding accomplishment. The site visitors were unanimous in their praise for the quality of our students and the upbeat enthusiasm they observed among our students. They were highly complimentary of the strong collegial relationship between our student body and faculty and staff and were impressed with the appreciation the students expressed for the quality of the education they received at MCG.”

The graduate program garnered six commendations, with the report noting the quality and leadership of faculty in the general practice, pediatric dentistry, orthodontics/craniofacial orthognathics, periodontics and prosthodontics residency programs.

“It is a great privilege to be part of this institution and to have the opportunity to continuously strive for better ways to make our school a place that our students and alumni are proud to call their own,” said Dr. Drisko. “It is my hope that we will continue to foster an environment that is conducive to learning, while continuing to focus on our institutional mission of improving health and reducing the burden of illness in society.”

The MCG School of Dentistry is the only dental school in Georgia.

—Christine Hurley Deriso

Hinman Gift Endows School of Dentistry Chair

A donation from the Thomas P. Hinman Dental Society will fund an endowed chair in general dentistry at the Medical College of Georgia School of Dentistry.

Dr. Thomas Callahan, chair of the society’s Board of Trustees, and Dr. Charles T. Ruhl, a member of the board, visited the campus Dec. 17 to present the first installment of the \$500,000 endowment.

“Our goal is to bring the most qualified person in the country to the Medical College of Georgia’s School of Dentistry to become the holder of the Hinman Chair of General Dentistry. This complements our overall mandate to improve dental education and the quality of dental care,” said Dr. Callahan. “Endowing this chair is the first time we’ve been able to provide a gift of this magnitude; and it is an honor to do so at the Medical College of Georgia, because they are doing such an outstanding job of educating future dentists.”

“This gesture of incredible generosity is yet another demonstration of the Hinman Society’s commitment to our school and to the betterment of dental education as a whole,” said MCG School of Dentistry Dean Connie Drisko. “The society has contributed \$272,000 to our school since its first gift in 1988, and it is a privilege to be a good steward of such unwavering support.”



DRS. CHARLES T. RUHL (FROM RIGHT) AND THOMAS CALLAHAN PRESENT CHECK TO DRs. CONNIE DRISKO AND DANIEL W. RAHN.

The late Dr. Thomas P. Hinman, an Atlanta dentist, founded the society in the early 1900s. The Hinman Dental Society sponsors one of the largest dental meetings in the nation (the Thomas P. Hinman Dental Meeting) and emphasizes the importance of continuing education. Last fall, the society funded the Thomas P. Hinman/MCG School of Dentistry Fellowship to bring world-renowned dentists onto campus to share their expertise with MCG faculty and students.

“It would be impossible to quantify the effects of the Hinman Society’s generosity on our dental school,” said Dr. Drisko. “The bottom line is that every single Georgian receives better dental care because of the society’s initiatives, and we are proud to partner with them in their efforts for ongoing progress.”

—Christine Hurley Deriso

MCG/Hinman Fellow Stresses Balance in Life



DR. NEWTON FAHL JR. TOURS THE MCG SCHOOL OF DENTISTRY

He practices cutting-edge dentistry, oversees his own teaching institute and travels the world to share his expertise with others – but Dr. Newton Fahl Jr. says the dizzying schedule is simply one component of his well-balanced life.

“I exercise every day, I love wine-tasting, I play the guitar...” he said, clicking off just a few of his hobbies. “And my wife, Grace, always travels with me, so we’re never apart. I think balance in life is very important.”

He counseled Medical College of Georgia dental students to follow his lead, discussing his career and the dental field in general during his Oct. 25-26 visit to campus. The visit followed Dr. Fahl’s lecture at an MCG continuing education course in Young Harris, Ga. – a jam-packed jaunt to Georgia as the first Thomas P. Hinman/MCG School of Dentistry Fellow.

The fellowship, funded by the Thomas B. Hinman Society of Atlanta, honors Dr. Fahl’s career as a world-renowned expert in aesthetic and cosmetic dentistry who practices in Curitiba, Brazil. The late Dr. Hinman founded the society, which sponsors the largest regional dental meeting in the area (the Thomas P. Hinman Dental Meeting) and emphasizes the importance of continuing education.

“This fellowship perpetuates Dr. Hinman’s commitment to second-to-none dental education by funding an internationally outstanding lecturer to interact with our students, faculty and alumni,” said MCG School of Dentistry Dean Connie Drisko. “We are very pleased that the first fellowship honors such an outstanding clinician and educator.”

“I’m so honored and privileged to be awarded this fellowship,” Dr. Fahl said. “It’s particularly rewarding to be honored in the United States, to which I’m truly indebted because this is where much of my education took place. It’s my second home.”

During his MCG visit, Dr. Fahl discussed his practice and the institute he created to teach his skills to other dentists.

“Until you’ve passed along the knowledge you’ve acquired, the learning process is not complete,” said Dr. Fahl, urging MCG dental students to be lifelong learners and teachers. “Education is an ongoing endeavor.”

He also stressed the importance of tailoring treatment to patients’ specific circumstances. In his cosmetic practice, he combines dentistry and artistry to create beautiful smiles that ideally retain the patient’s own teeth and preserve their uniqueness.

“I’m all in favor of a natural smile, and natural smiles aren’t necessarily perfect, all-symmetrical smiles,” he said. “Ultimately, patients make the calls. I talk to them, educate them on the benefits, explain alternatives, give them all the information ... then it’s their decision.”

He loves his work, noting that his father – who still practices dentistry in Brazil at age 77 – modeled a great work ethic and a strong sense of integrity. “It’s who we are, not what we do, that will make a difference in our profession,” he told MCG students. “What we do is only an extension of our mind and heart.”

—Christine Hurley Deriso

Mercury toxicity research garners national award

Melissa Shaw, a second-year dental student in the Medical College of Georgia, has received an award for her mercury toxicity research.

Ms. Shaw received the Outstanding Basic Science Award for her presentation at the Hinman Student Research Symposium Oct. 29-31 in Memphis, Tenn. The symposium, sponsored by the Thomas B. Hinman Society of Atlanta, perpetuates the deceased founder’s commitment to continuing education in dentistry. Dental students throughout North America participated in the symposium.

“We are thrilled that our students’ excellence in research was objectively affirmed, particularly considering that the students were competing against peers throughout the United States and Canada,” said School of Dentistry Dean Connie Drisko.

Ms. Shaw’s research involved measuring mercury levels in monocytes, which are directly exposed in the blood to mercury absorbed from environmental sources or dental amalgams. Preliminary results indicate that mercury does cause monocyte alterations, indicating the need for further studies to ensure the safety of mercury-containing dental amalgams. Her co-investigators included MCG School of Dentistry faculty members John Wataha, Dr. Jill Lewis and Regina Messer.

Green Tea Research Leads to Gum and Other Products

The health benefits of green tea are finding their way into gum, mints, skin cream and other products with the help of a Medical College of Georgia cell biologist.

Dr. Stephen Hsu, a researcher in the MCG Schools of Dentistry and Graduate Studies whose work has revolutionized the understanding of green tea's healing and preventive properties, recently began an arrangement with New Jersey-based CCA Industries, Inc. to make those properties readily available in everyday products. The first of

these products, Mega-T Green Tea Chewing Gum, is on store shelves now. Each piece of the mint-flavored, sugar-free gum equals two cups of green tea.

CCA Industries, Inc. is a public company listed in the American Stock Exchange under the stock symbol, CAW.

Dr. Hsu has been intrigued by the properties of green tea since observing that populations that drink green tea regularly have much lower cancer rates than populations that don't. His research helped determine that green tea polyphenols help eliminate free radicals, which can damage DNA and lead to cancer.

He further found that green tea-induced p57—a protein that helps regulate cell growth and differentiation—changes the behavior of healthy cells as polyphenols target cancer cells for destruction. This change of behavior protects the healthy cells.

Dr. Hsu discovered that the polyphenols activate two separate pathways, one for normal cells and

one for cancer cells. The polyphenols serve as a sentinel, separating cells with p57 from cancer cells, which lack p57. He found that while the normal cells are shuttled to safety, the polyphenols destroy the mitochondria of cancer cells.



A National Cancer Institute grant is helping him determine the exact genetic behavior involved in this process. For instance, he has already found that a green tea polyphenol called EGCG increases reactive oxygen species, or ROS, a form of oxidative stress in oral cancer cells. "Cells with abnormally high levels of ROS become damaged," he said. "If the level is very high, the cells will be killed. On the other hand, ROS is brought to background levels by EGCG in normal skin and salivary gland cells, suggesting a protective role of EGCG in normal cells."

Some methods of bolstering ROS are inadvertent; for instance, excessive sun exposure can increase ROS to the point of irreversible cell damage. Chronic exposure to carcinogens and certain drugs also can damage salivary gland cells.

Dr. Hsu and his colleagues found that when they added EGCG to cells, the polyphenols increased ROS levels in cancer cells but reduced them in healthy salivary gland and skin cells.

"All of our data indicate that EGCG can lower the ROS level [of healthy cells] and keep it low," Dr. Hsu said. "This is very exciting because perhaps we can use EGCG

to protect healthy cells and prevent side effects from medications that impair salivary function and cause dry mouth."

For instance, oral cancer treatment can severely damage the salivary gland. "When this happens, the patient can no longer effectively secrete saliva and has a chronically dry mouth," Dr. Hsu said.

Dry mouth also affects some people without cancer, including fully 30 percent of the elderly, Dr. Hsu noted. The green tea gum not only protects the tissue but stimulates the salivary glands to produce more moisture.

Healthy people can chew the gum for preventive health, or just to enjoy a piece of gum, Dr. Hsu said, noting that the cost is comparable to that of regular gum. He suggests chewing a piece at least 15 minutes for optimal health benefits.

Mints and skin-care products will be on store shelves soon, he said, noting that fitness leader Denise Austin is creating a signature brand of green-tea skin care products and cosmetics for CCA Industries.

—Christine Hurley Deriso

Dental Faculty Named Fellows

Dr. Connie Drisko, dean of the Medical College of Georgia School of Dentistry, and Dr. Van B. Haywood, professor of oral rehabilitation in the dental school, have been named fellows of the International College of Dentists.

Fellowship honors meritorious service to the dental profession and community.

The International College of Dentists has chapters in more than 80 countries and approximately 10,000 members.

Finding Could Improve Safety of Stem Cell Transplants

A lipid that helps destroy potentially harmful cells during brain development may make stem cell transplants safer and more effective, say researchers at the Medical College of Georgia and University of Georgia.

When embryonic stem cells are being coaxed toward becoming brain cells that could be transplanted, that lipid, ceramide, helps eliminate cells that could later form tumors called teratomas, researchers wrote in the Nov. 22 issue of *The Journal of Cell Biology*.

"The body has amazing mechanisms to eliminate cells that are no longer wanted and that if they remain will harm the body by developing into tissues that are not meant to be," said Dr. Erhard Bieberich, MCG biochemist and the study's lead author. "Our studies show this particular

mechanism can help stem cells safely become the cells we want them to be."

"This is another approach to controlling differentiation and getting the cell types that you want," said Dr. Brian G. Condie, developmental neurobiologist at UGA and MCG and senior author on the paper.

While the ability of embryonic stem cells to make all types of tissue has scientists worldwide exploring their potential to treat diseases, this characteristic can also be harmful if uncontrolled, says Dr. Bieberich.

Drs. Bieberich and Condie demonstrated in the Aug. 4, 2003 issue of *The Journal of Cell Biology* that a natural process occurs during development to eliminate excessive and potentially harmful cells. Just before neurons begin forming, there is a massive

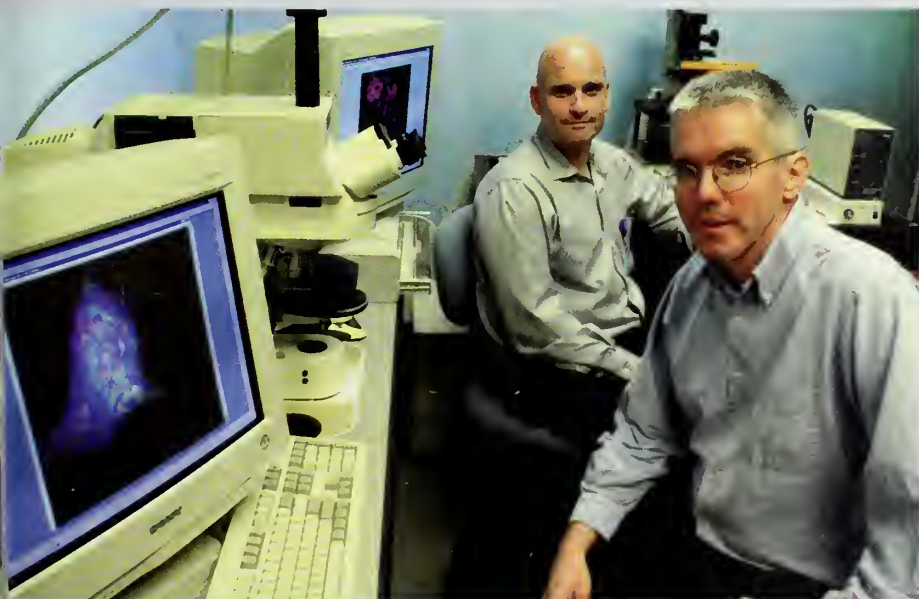
production of proteins and up-regulation of lipids. At that point, about half the cells have high levels of the protein PAR-4, half have high levels of the protein nestin, and all have high levels of ceramide.

The researchers found cells that inherited PAR-4 died when partnered with ceramide. The nestin-bearing cells are most likely to become neurons while the PAR-4 cells, should they survive, could contribute to brain malformation.

In this new paper, they took their findings in mouse embryonic stem cells and also looked at an approved line of human embryonic stem cells available through the National Institutes of Health Embryonic Stem Cell Registry. They found as the cells differentiated in culture, those containing PAR-4 have yet another bad dance card.

"We have discovered that particular cells derived from embryonic stem cells that express PAR-4 also cause teratoma formation," said Dr. Bieberich of the mostly benign growths comprised of multiple types of tissue, typically none of which belong in the tissue where they are found.

They found that PAR-4-expressing cells also express Oct-4, a transcription factor that controls a cell's ability to develop into all three basic types of tissue: mesoderm, ectoderm and endoderm. "If Oct-4 is expressed, the cells are still pluripotent, which is good if you want to grow



DRS. ERHARD BIEBERICH (LEFT) AND BRIAN G. CONDIE

all those kinds of embryonic layers,” said Dr. Bieberich. “But if you transplant them, you are at risk of forming teratomas.”

However, at least in the culture dish, when they added PAR-4’s lethal dance partner, ceramide, to the mix, PAR-4- and Oct-4-expressing cells again died before they could do harm.

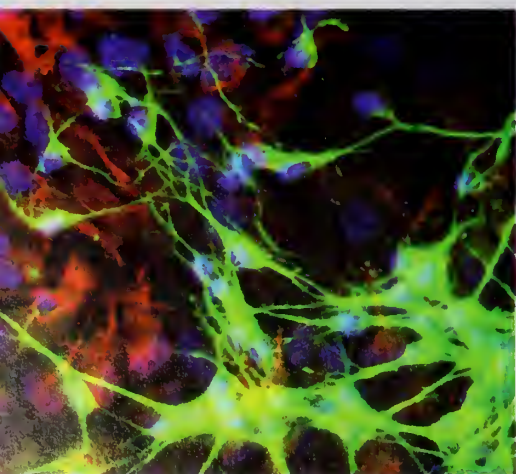
The ceramide analogue, N-oleoyl serinol, or S18, also increased the proportion of nestin-containing cells in cell cultures and grafts.

Drs. Bieberich and Condie were quick to note that in their studies, they intentionally left PAR-4- and Oct-4-bearing cells in the mix to see if they could eliminate them.

“There already are ways to grow stem cells, purify them in cell culture and get a pure population of stem cells that you can transplant,” said Dr. Condie.

“You want to make those cells differentiate into a particular cell type that is no longer able to form teratomas,” Dr. Bieberich said of this purification. “Having said that, that may not always be absolute.”

“We are trying to find ways that can be combined with methods currently being used to



further reduce the chances of teratoma formation and make



EDUCATION WITHOUT BORDERS

THE MEDICAL COLLEGE OF GEORGIA HOSTED REPRESENTATIVES OF CHINA’S WUHAN UNIVERSITY NOV. 19-20 AND SIGNED AN AGREEMENT ESTABLISHING AN INTERNATIONAL GRADUATE STUDENT EXCHANGE PROGRAM BETWEEN THE TWO UNIVERSITIES. CURRENTLY, 10 WUHAN GRADUATE STUDENTS ARE TRAINING WITH MCG MENTORS. AFTER THREE YEARS IN AMERICA, PARTICIPANTS RETURN TO CHINA AND RECEIVE A DOCTORATE FROM WUHAN UNIVERSITY. THE STUDENTS AND THE WUHAN REPRESENTATIVES—DR. MINGWEN FAN, DEAN OF THE WUHAN UNIVERSITY SCHOOL OF MEDICINE, AND DIANA LIU PING, VICE DIRECTOR OF INTERNATIONAL AFFAIRS AT THE WUHAN UNIVERSITY SCHOOL OF MEDICINE—WERE TREATED TO AN AMERICAN THANKSGIVING FEAST AT THE HOME OF DRs. RHEA-BETH MARKOWITZ AND WILLIAM DYNAN, WHO OVERSEE THE EXCHANGE PROGRAM. MCG PROVOST BARRY GOLDSTEIN SIGNED THE AGREEMENT WITH DEAN FAN.

stem cells extremely safe,” Dr. Condie said. “This is something that you want to have zero doubt about.”

The next step is to look at an intact mouse embryo to see if the identical processes are at work.

The researchers’ work was funded by the NIH’s National Institute of Neurological Disorders and Stroke. Staff members of Dr. Bieberich’s lab, research coordinator Jeane Silva, research associate Guanghu Wang and graduate student Kannan Krishnamurthy, contributed to this work and co-authored the publication.

—Toni Baker

Stem Cell Program Targets Tissue Replacement

Maximizing the potential of stem cells to repair damaged tissue and possibly make new organs is the goal of the new Medical College of Georgia Program in Regenerative Medicine.

"We want to learn more about stem cells over the lifetime of a human and why they seem to quit working as we age," said Dr. Carlos M. Isales, endocrinologist and chief of the new program in the Institute of Molecular Medicine and Genetics. "Is it because the stem cells are becoming depleted? Is it because they are dying out and not being replaced? Are other hormones being produced that interfere with the action of stem cells?"

The program is partnering with groups including the MCG Schools of Medicine and Dentistry, the University of Georgia, the University of South Carolina, Savannah River National Laboratory and Fort Gordon to pursue answers. Clinicians and basic researchers are collaborating to develop new approaches to treating common diseases. They recently applied for a National Institutes of Health Program Project grant to fund their research, "Molecular Mechanisms of Tissue Repair With Aging."

Stem cells are relatively sparse and difficult to track in the body, so researchers will isolate cells from umbilical cord blood, bone marrow and fat and study them in vitro. They also will examine the cells in tissue of different ages to see how they change and what responses generate new cells. "Maybe as cells age, they lose their ability to respond to vibration," said Dr. Isales. "Each time you walk, for example, you are generating a vibration to your bone that helps keep that bone

healthy and helps make that bone grow. How do these mechanisms change as we and our bones grow older?"

Although relatively little is known about the function of stem cells in the body, some stem cells have been better characterized than others. For instance, scientists know that mesenchymal stem cells can become fat, bone or cartilage, making them a natural fit for bone-repair research, Dr. Isales said. Embryonic stem cells, which have generated much controversy, seem to have the broadest potential. These undifferentiated stem cells can make virtually any type of tissue depending on the setting in which they are placed, many scientists agree.

"The idea is that eventually, you could replace just about any tissue that is damaged," said Dr. Isales. "[Some] animals regenerate whole tissues; for instance, salamanders can grow new tails. Why can they and why can't we?"

He cites potentially limitless applications, including organs for transplant patients and skin grafts for burn victims.

Dr. Karl H. Wenger, a biomedical engineering scientist and director of research for the MCG Department of Orthopaedic Surgery, will develop a bioreactor where stem cells from each patient could one day be grown into needed replacement organs and tissue. Each cell type has a distinct framework or matrix that will be used like the frame of a building to construct what's needed.

"We are moving from doing transplantation to being able to take primitive cells or the patient's own cells to grow the tissue he needs," said Dr. Isales.

MCG dental school researchers already are collaborating with colleagues at the Georgia Institute of Technology to use computer technology and X-rays to design identical replacements for bone and other facial tissue lost to cancer.

"We are working at the moment in materials, but the idea is to expand this into more compatible materials and eventually into natural tissue replacement," said Dr. George S. Schuster, associate dean for research for the School of Dentistry. "We are particularly interested in being able to reconstruct people with facial cancer. Oral facial cancer is one of the most disfiguring diseases you can think of."

-Toni Baker

Dr. Harris Receives Javits Award

Dr. Kristen M. Harris, chief of the Synapses and Cell Signaling Program at the Medical College of Georgia, has received the National Institute of Neurological Disorders and Stroke's Javits Neuroscience Investigator Award for her studies of anatomical changes that occur at synapses, the sites of communication between brain cells.

Congress established the Senator Jacob Javits Award in the Neurosciences in 1983 to honor the late New York senator with amyotrophic lateral sclerosis who was an advocate for research of the brain and nervous system. Nearly 480 awards have been made to date.

The award recognizes investigators who have made substantial contributions to the neurological science field and likely will continue being highly productive for the seven-year term of award funding.

Dr. Harris, Georgia Research Alliance Eminent Scholar in Synapses and Cell Signaling, was nominated for the award by Dr. Yuan Liu, program director in Channels, Synapses and Circuits; Technology Development at the National Institute of Neurological Disorders and Stroke of the National Institutes of Health. She was selected by the National Advisory Neurological Disorders and Stroke Council.

A total dollar amount has not yet been determined for the funding, which will support studies to document in living animals the changes in synapses that likely enable learning and memory. However, Dr. Harris requested nearly \$1.4 million over the original five-year period.

"This is a terrific honor for Dr. Harris and for the university," said Dr. David M. Stern, dean of the MCG School of Medicine. "In her near 30-year career, Dr. Harris and her team have made fundamental

discoveries about anatomic changes in synapses that likely will not only help us better understand how we learn and remember but also pave the way for better treatments of diseases that disrupt these processes. Her latest grant helps take critical forward steps, from studying slices of brain tissue to intact, living models."

Dr. Harris' studies focus on synapses where brain cells share chemical messengers called neurotransmitters and how these synapses change in size and number so information can be learned and remembered.

"There have been a lot of people working hard together to develop the tools to investigate at the submicron level how the structure of the brain changes; we have to look at the submicron level because that is the size of synapses," said Dr. Harris, who came to MCG in 2002 from Boston University.

Her MCG team includes Dr. Bitao Shi, research assistant professor of neuroinformatics; Dr. Jennifer Bourne, postdoctoral fellow in neuroscience; Robert Smith and Elizabeth Perry, electron microscopists; Jim Parkerson, Mark Witcher and Anusha Mishra, who contribute to various aspects of the project; and Wendy Cline Paschal, research project coordinator.

At this submicron level, she focuses on how synapses change in response to stimulation, a process called long-term potentiation, which scientists believe is a basic mechanism for learning and memory. They also believe long-term potentiation, or LTP, can be a model for studying whether experimental treatments have affected the brain. "You can apply a drug or manipulate genes in study animals, then look and see whether it was involved in the cellular mechanisms of learning," Dr. Harris said. "If it was, then you would take the same animal and test it to see if

it learns as well as its litter mates."

She uses three-dimensional images of synapses, where the threadlike extensions called axons of one neuron meet up with branch-like structures called dendrites of the next to learn more about changes at this critical juncture. Most excitatory synapses occur at tiny thorn-like protrusions from the dendrites called dendritic spines.

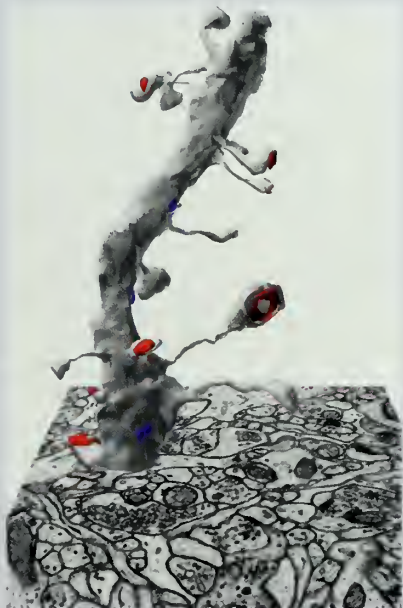
LTP requires new protein synthesis that enables consolidation and preservation of changes at the synapse; after LTP, dendritic spines undergoing protein synthesis increases from 10 percent to 40 percent. "This also is a new area of understanding in the brain. You don't have to go down to the nucleus to initiate new protein synthesis," Dr. Harris said. "We are finding that it can be induced and it can be targeted very specifically to a subset of the spines that have



THE AWARD RECOGNIZES INVESTIGATORS WHO HAVE MADE SUBSTANTIAL CONTRIBUTIONS TO THE NEUROLOGICAL SCIENCE FIELD AND LIKELY WILL CONTINUE BEING HIGHLY PRODUCTIVE FOR THE SEVEN-YEAR TERM OF AWARD FUNDING.

undergone LTP.” In fact, when protein synthesis is blocked, ‘long-term’ potentiation does not last.

She isn’t sure that the changes she is finding enable learning and memory in humans. “That is two steps beyond this grant,” said



Dr. Harris, who already is working with MCG colleagues to apply for an NIH Program Project grant that may take at least one of those steps. “Right now, we only know that it would explain the amount of LTP that we get in the cell.”

The Javits Award will enable study of the cellular mechanisms of learning and short-term memory in living laboratory animals to see whether what they have found in brain slices translates to an intact animal brain. “We are going to work across a timeframe, after induction of long-term potentiation, and find out when the different molecules change, whether the synapses remain enlarged, start to fall off, fall off with LTP or something else.”

Dr. Cliff Abraham, neuroscientist and chief of the Psychology Department at the University of Otago in Dunedin, New Zealand, who is known for his electrophysiology studies of LTP in the intact brain, will work with Dr. Harris on the grant.

As she was putting that grant application to bed, Dr. Harris remembers thinking reviewers might consider it too much ground to cover in the five years she originally requested. Instead, the application was given a high score by reviewers and subsequently nominated for the seven-year Javits Award. “I was really happy that they thought Javits instead of over-ambitious,” Dr. Harris said.

—Toni Baker



DR. KRISTEN M. HARRIS

Finding Advances Spinal Cord Research

A piece of the puzzle of how nerves find their way across the midline of the brain and spinal cord in a developing embryo has been found by Medical College of Georgia researchers.

They have found that an enzyme called focal adhesion kinase tells the arm-like extension of a neuron to cross the midline of the spinal cord, says Dr. Wen-Cheng Xiong, developmental neurobiologist and lead author on the paper in the November issue of *Nature Neuroscience*.

After crossing, the axon becomes part of the complex network that enables the right side of the brain to control the left side of the body and vice versa.

The finding helps explain normal development of the nervous systems and provides a new target in the search for ways to re-establish connections – and the movement and feeling they enable – lost to spinal cord injuries.

“This kinase plays a role in helping direct axon movement across the spinal cord during development,” Dr. Xiong said. “How it does that is one of the questions we hope to answer next. We still have a lot of questions.” Among those is why this mechanism doesn’t seem to work after development is complete. “If the spinal cord is injured, why doesn’t it re-cross that boundary?” she said. “Why are these molecules not functioning well in the adult?”

Focal adhesion kinase already is a hot topic among scientists studying how cells migrate and how tumor cells spread. Now, Dr. Xiong and her collaborators have found the enzyme also plays an important role in central nervous system development.

She explains that for axons to journey across the spinal cord, floor plate cells along this natural midline of the developing body secrete a guidance or cue factor called netrin-1. “If this molecule is deleted, this axon cannot cross. It just stays on this side” and the developing embryo will die, a testimony to netrin’s expansive role in getting cells where they need to be. “This factor plays a critical role for nearly all the neurons to cross the midline, even in the cortex or hippocampus of the brain,” Dr. Xiong said.

A receptor on the axon called DCC, or Deleted in Colon Cancer, responds to the signal from netrin. But why the axon knows to move in a certain direction once it sees that signal was an unknown. The researchers have now found that once this receptor binds to netrin, focal adhesion kinase is activated that tells the axon to reorganize its structure or cytoskeleton and the restructured axon knows how to move. When they delete the kinase, the axon doesn’t make the proper journey or the proper connection.

Developing axons can sense and navigate their environment, but how the two functions work together to get the axon where it needs to be is poorly understood, Dr. Xiong said. “Everybody in the developmental neurobiology field is wondering how the neuron, once it senses the environment, couples with the motor activity. [Our research] provides information for that kind of puzzle.”

DR. WEN-CHENG XIONG



The researchers are looking for other molecules that also play a role in directing axonal growth. “We have lots of information about how this molecule talks with other molecules,” Dr. Xiong says. “We just need to get a system to figure out how they talk to each other.”

She’s also moving toward an injury model to see what happens to this molecular talk after a spinal cord injury. “We know this factor can turn on, but we don’t know how it turns on. If you sever the spinal cord, the important crossing of the axon is gone. Right now, we don’t know how to make it go back.”

Drs. Xiong’s MCG collaborators on the study include her husband, Dr. Lin Mei, also a developmental neurobiologist; research technician Zhu Feng and graduate student Qiang Wang; and researchers at the University of Alabama at Birmingham, Johns Hopkins University School of Medicine and Washington University School of Medicine.

Her research is funded by the National Institutes of Health.

—Toni Baker

Dr. Fincher Honored by Regents



Dr. Ruth-Marie Fincher, vice dean for academic affairs and professor in the Medical College of Georgia School of

Medicine, was one of six people inducted into the University System of Georgia Board of Regents inaugural Hall of Fame.

The awards honor three University System faculty members and three alumni of the system's 34 institutions for their contributions to public higher education in Georgia. Awards were given in the categories of research universities, four-year and regional universities, and two-year and state colleges.

Dr. Fincher, who received the faculty award for research universities, joined the MCG faculty in 1984. She has received MCG's Medical Educator of the Year Award for eight consecutive years; MCG's Outstanding Faculty Award; the Alpha Omega Alpha Association of American Medical Colleges Distinguished Teacher Award; the Daniel S. Tosteson Award for Leadership in Medical Education from Harvard Medical School and the Association of American Medical Colleges.

Student Clinic Serves Underprivileged Patients

For Onyinye Okpukpara, Thursdays are a chance to reconnect with the reason she chose medicine: people.

From 6-8 p.m., she and several of her School of Medicine classmates volunteer their services to provide primary care at Augusta's Salvation Army Clinic. MCG Department of Medicine faculty members oversee the treatment, which includes referrals for follow-up care when necessary.

"This clinic has opened my eyes to the fact that when I become a doctor, there are avenues to serve the underprivileged," said Onyinye, one of four second-year medical student coordinators of the clinic.

The clinic supplements the St. Vincent DePaul Health Clinic, which operates weekdays from 9 a.m. to 5 p.m. "A lot of people are unable to come during those hours, so MCG staffs the evening clinic," said Elga Tinger, a second-year medical student. "Usually we see about a dozen patients per Thursday."

All services are free, and reduced-cost prescriptions are available via a voucher system. The clinic is open to anyone in the Augusta area, but most participants are low-income families, and many are homeless.

"We see kids through geriatrics, but most of the patients are middle-aged," said Elga. "A lot of times, this is the only primary care they have. One of the biggest problems is that they don't have anyone to follow up with because they can't afford it."

Elga worked as a registered nurse at Atlanta's Grady Memorial Hospital before enrolling in medical school and is familiar with the needs of society's most disenfranchised citizens. "They have a lot of hygiene-related diseases," she said. "A lot of them don't have access to clean clothing. Their feet stay wet because they walk around a lot, sweat and don't have chance to take shoes off."

"I've discovered for myself the joys and frustrations that come with volunteer medical work," said second-year medical student James Fletcher. "It's a wonderful educational resource for improving my technical and communication skills and learning many of the nuts and bolts of primary care medicine. I can leave the clinic with a sense that I've truly given of myself, that I've done what I can to offer my help to those who need it most."



DR. BRUCE LECLAIR (FROM LEFT), MEDICAL STUDENT ELGA TINGER AND DR. ERVIN WELLS EXAMINE ANTHONY GILBERT AT THE SALVATION ARMY CLINIC.

—Ellen Gladden

Transfusion Finding Steers Sick Cell Treatment

The 10 percent of children with sickle cell disease who are at risk for a stroke need ongoing blood transfusions to reduce their risk, according to a study at 25 sites in North America.

The National Heart, Lung and Blood Institute of the National Institutes of Health, which funded the \$11 million study headquartered at the Medical College of Georgia, issued a clinical alert to coincide with the Dec. 5 announcement of study findings at the American Society of Hematology meeting in San Diego.

"Whatever process puts these children at risk is fairly durable," said Dr. Robert J. Adams, MCG neurologist and principal investigator on the Optimizing Primary Stroke Prevention in Children with Sickle Cell Anemia, or STOP II, study. "We believed that we had identified a group that might tolerate coming off transfusion, but the results did not confirm this. Too many of those taken off had return of abnormal transcranial Doppler, the best indicator of stroke risk, and there were two strokes in this group. We need more research to come up with a better way to limit the use of transfusion while still preventing strokes."

"This important study shows the value of continuing periodic blood transfusions in preventing the serious and debilitating consequences of stroke," said NHLBI Acting Director Barbara Alving. "At

the same time, there are risks of chronic transfusions and the decision to continue with this treatment must be made on a case-by-case basis."

The STOP II study tested whether regular transfusions could be safely stopped after at least 30 months in a group of children who reverted to low stroke risk based on normal transcranial Doppler and magnetic resonance angiography after treatment.

The study was to have enrolled 100 children. However, the NHLBI-appointed Data and Safety Monitoring Board recommended early closure after 79 children were enrolled and randomized – half continued transfusion, half did not – because too many of the children who did not receive transfusions were reverting to high-risk status.

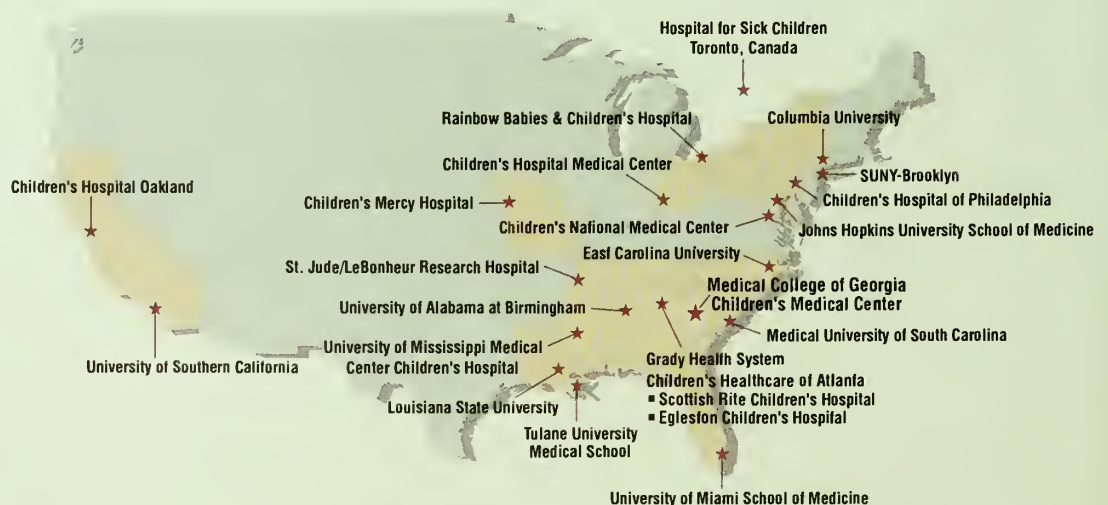
Of the 41 children who came off transfusions, 14 reverted to



DR. ROBERT J. ADAMS HAS OVERSEEN RESEARCH THAT HAS REVOLUTIONIZED THE TREATMENT OF SICKLE CELL PATIENTS AT HIGH RISK OF STROKE.

high-risk status within 10 months and two others had strokes shortly after their first abnormal study but before a confirmatory test could be performed and transfusions resumed. No reversions or strokes were seen in children who continued to receive transfusions.

Optimizing Primary Stroke Prevention in Children with Sickle Cell Anemia, or STOP II, Study Sites



Thirteen of the 14 children who reverted to high-risk status resumed transfusions; one patient opted against resumption.

Dr. Adams and Dr. Virgil C. McKie, the now-retired chief of pediatric hematology/oncology at MCG, published a paper in the *New England Journal of Medicine* in 1992 identifying the painless transcranial Doppler as the first non-invasive method for identifying these children before their first stroke.

The finding led to the original STOP study, which found that monthly blood transfusions that raise the amount of red blood cells in these at-risk children reduced stroke risk by 90 percent. That study began in 1995 and also was halted early because of the obvious transfusion benefit. The institute issued a physician advisory recommending regular transcranial Doppler studies in children age 2-16 with sickle cell disease and consideration of transfusions in children at risk.

STOP II sought to determine whether the normalizing benefits of 30-plus months of transfusions would hold up if therapy stopped.

"While some children seemed to tolerate coming off transfusion, in most others, the need for ongoing treatment was clear within a few months," Dr. Adams said, noting that transfusions aren't without risk because of concerns including iron buildup and blood-borne infections. "Now, we need to work on ... maintenance therapy that is safer long term and holds onto the large gains in stroke prevention we have made. We know that for the stroke-prevention strategy based on STOP to be fully accepted, we have to find a stopping point for transfusions."

One approach might be comparing transfusion therapy to hydroxyurea, the first Food and Drug Administration-approved

drug for adults with sickle cell disease, which is still under study in children. The drug raises the level of fetal hemoglobin, which cannot sickle. Another approach is modifying the transfusion program to deliver less iron.

Dr. McKie, Professor Emeritus of Pediatrics and STOP II co-investigator, concurs that STOP 2 is not the end of the story. "Now it's time to step back and see if we can figure out what it is about the 10 percent that makes them at risk," he said. "The other issue is how transfusions work to prevent strokes."

They are partnering with Dr. Jin-Xiong She, director of the MCG Center for Biotechnology and Genomic Medicine, to look for clues about how the stroke risk happens and possibly for better ways to avoid stroke.

-Toni Baker

Weekend Retreat Slated Feb. 25-26

The School of Medicine Alumni Association will host an Alumni Weekend Retreat Feb. 25-26 at the Hyatt Regency Hotel in Savannah, Ga.

The retreat will begin with a reception Feb. 25 at 6 p.m. Registration and a continental breakfast will follow on Feb. 26, with presentations about gastroesophageal reflux disease and colon cancer from Dr. Robert Schade, section chief of gastroenterology and hepatology at MCG, and presentations about prostate cancer and erectile dysfunction from Dr. Mark Ellison, a urologist and 1982 School of Medicine alumnus.

For more information, contact Scott Henson, MCG director of alumni affairs, at 706-721-4416.



WELCOME ABOARD!

THE ALUMNI ASSOCIATION OF THE SCHOOL OF MEDICINE HOSTED ITS ANNUAL BRUNCH FOR FRESHMAN MEDICAL STUDENTS AUG. 6 AT THE OLD MEDICAL COLLEGE.

'Mighty Mouse' Wages War on Osteoporosis

A genetically engineered 'mighty mouse' is helping Medical College of Georgia researchers find the best way for young people to build bone and avoid osteoporosis.

"We are interested in kids; we want to know how to maximize their bone during peak periods of



DR. MARK HAMRICK

growth while they still can," said Dr. Mark Hamrick, bone biologist. "One of the best predictors of who is going to get osteoporosis is how much bone you have at sexual maturity. We want to know what people can do from zero to age 18 that really is going to pack that bone on."

These mighty mice, with up to 70 percent more muscle mass than a regular mouse and essentially no body fat, and a \$1 million grant from the National Institutes of Health are helping Dr. Hamrick answer that question.

The mice lack the myostatin gene, a negative regulator of muscle mass. "Lots of genes control muscle development," said Dr. Hamrick. "This one is pretty significant in terms of not letting muscles get too big."

Myostatin is expressed at highest levels during development, when the embryo is growing, to ensure that muscles don't overgrow, Dr. Hamrick says. The level expressed changes naturally over the course of life. "It's still expressed as children grow and is present in very low levels in adults," he said. "It's suggested that you might get rises in myostatin levels with aging, which is associated with a loss of muscle mass that typically accompanies increased age." Some muscle-wasting diseases as well as space flight and extended bed rest also are associated with increased myostatin levels.

Numerous products claim to help adults build muscle by turning off this powerful muscle regulator produced by muscle cells. But the only product scientifically proven to block myostatin is a monoclonal antibody now under study for its potential to treat muscular dystrophy.

The muscular rodents who lack myostatin are enabling scientists to explore the hypothesis that one of the best ways to build bone is to build muscle.

"People have argued for many years that the way to increase bone density and strength is force – bones respond to the stress and strain placed on them by forming more bone – and the best way to increase that force is big muscles," said Dr. Hamrick. "We want to know if that is the case. We want to know if certain genes involved

in bone formation are up-regulated with increased muscle and if these genes are stress-responsive.

"We also want to know if muscle can affect bone in other ways. Maybe it affects different hormones. Maybe it's a source of different growth factors itself. There's the frequency of a stimulus, not just the magnitude of it. There are also changes in blood and fluid flow. We need to know the real mechanism."

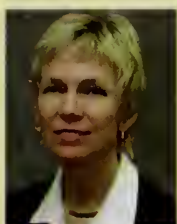
And does it matter if the force put on bone comes from fat rather than muscle? "Some studies suggest that fat is a great predictor of bone mass and that it has protective effects on the bone in postmenopausal women," Dr. Hamrick said. Yet obese children tend to have lower bone mass relative to their body weight than they should, he said.

"We can look at whether muscle has more of an impact on bone mass than fat because our mighty mice don't gain fat. So we can take two mice that weigh exactly the same, one mostly muscle and the other mostly fat, and compare bone mass," he said. He is also exploring whether exercise increases bone mass as much as the loss of myostatin. Interestingly, early evidence indicates that exercise doesn't benefit the bones of the myostatin knockout mice as much as those of normal mice.

"I think what we are finding is that the best way to make our kids strong, healthy and happy is a good diet and regular exercise. That is going to help their hearts, brains and bones. We see it in people. We are seeing it in mice."

–Toni Baker

A Message from the Dean



Welcome to my introductory column as dean of the Medical College of Georgia School of Nursing. I arrived in mid-July and hit the ground running, working with faculty and students and canvassing the state to represent MCG nursing in important arenas.

So much news is unfolding – a new B.S.N. curriculum, a new entry master's degree for people with non-nursing degrees, a new practice doctorate, the recruitment of a wife-and-husband research team and implementation of a new faculty practice plan, just to name a few developments. We'll keep you posted on all this news and more. In the meantime, let me tell you a story about a senior MCG leader whose mother is a nurse and how his love for his mother spawned a campaign of ideas.

This young man so admires his mother and her contributions to nursing that he secretly endowed a nursing scholarship in her name. He will honor her at this year's convocation, and a deserving student will be the first recipient of this endowed scholarship. I learned of his gift while planning a 95th birthday party for my aunt, also a nurse, and I had an idea: Why not give "Sister" (Emily Nairn of McRae, Ga.) the same type of endowment? To make a long story short, another scholarship will be awarded this spring to a deserving graduate student in honor of my aunt. (See related story, right.)

Is there a nurse in your family? Rather than agonizing over the perfect gift for an upcoming birthday or holiday, why not create an endowment in his or her honor? You can make a lasting impact on nursing education and help in your own way to alleviate the nursing shortage in Georgia. For more information, contact Betty Meehan, director of development, at 706-721-4837.

Thank you for your interest in the School of Nursing. Please feel free to use this column as a form of dialogue and to share your own ideas. I welcome your comments, questions and advice as we chart our way through exciting new waters at MCG.

Ever onward,

Lucy N. Marion

Dr. Lucy Marion
Dean, School of Nursing

Dean establishes endowment in honor of 95-year-old aunt

Dr. Lucy N. Marion, dean of the Medical College of Georgia School of Nursing, has joined with her family members to establish an endowment in her aunt's honor.

The Emily Flanders Nairn Endowment will fund scholarships for MCG graduate nursing students interested in treating addictions. Dr. Marion and almost 30 family members recently threw Ms. Nairn a 95th birthday party, where they told her about the honor. "She said it was the best present she ever received," said Dr. Marion.



EMILY NAIRN AS A NURSING STUDENT.

Ms. Nairn, a resident of McRae, Ga., is "a nurse of extraordinary dedication and abilities," said Dr. Marion. "After serving as a nurse in hospitals and homes, she worked in a nursing home until her 70s, all in Telfair County. Her first love is helping others to overcome addictions and counseling young people to avoid the throes of chemical dependency."

For information about how to contribute to the endowment, contact Betty Meehan, director of development for the School of Nursing, at 706-721-4837.

Nursing Leader Cites Transformation in Health Care

Her optimism is nothing short of infectious.

Dr. Linda H. Aiken has spent over a decade researching and documenting challenges in the nursing profession. But Dr. Aiken, director of the Center for Health Outcomes and Policy Research at the University of Pennsylvania, says that her research, and more like it from other nurses nationwide, is transforming the health care landscape – with the American patient as the beneficiary.

“I think these are great times for nursing. The nation has finally come to our agenda,” said Dr. Aiken, who lectured Nov. 5 at the Augusta Museum of History to over 100 nurses from the Southeast. The lecture’s sponsors included MCG Health System and the Beta Omicron chapter of Sigma Theta Tau.

Public support for the agenda is coming not a moment too soon, she said, citing an estimated nursing shortage of 800,000 by the year 2020.

Dr. Aiken, the 10th most powerful person in health care

according to *Modern Healthcare* magazine, published findings in a 2002 edition of the *Journal of the American Medical Association* correlating patient outcomes with factors including nurse staffing levels, nurse education levels and workplace environmental factors such as communication among members of the health care team.

Not surprisingly, hospitalized patients fare best when treated by a nurse with a reasonable patient load, a good education (generally baccalaureate-level or higher) and a workplace that recognizes and rewards his expertise. But too few hospitals create this environment, Dr. Aiken said.



DR. LINDA H. AIKEN

“I’ve come to believe that we can do better, even though we like to say we have the best hospitals in the world,” she said. “They can be better, and they should be.”

And creating nurse-friendly environments needn’t be cost-prohibitive, she stressed. For instance, she said, hiring baccalaureate-level nurses saves money in the long run by improving patient outcomes and minimizing turnover. The American Nurses Credentialing Center now assigns Magnet Hospital status to hospitals that meet criteria crucial to nurse satisfaction and patient outcomes. Some hundred hospitals nationwide are Magnet Hospitals, with about 250 in the pipeline, Dr. Aiken said.

“We’re reaching a tipping point,” she said. “As more and more hospitals apply for Magnet Hospital status, the bar will be raised higher and higher.”

—Christine Hurley Deriso

Class Donation Supports E. Louise Grant Chair

All nine remaining members of the School of Nursing class of 1958 recently made a collective donation to the E. Louise Grant Chair, named in honor of the school’s founding dean.

“They each wrote a check, and I know it came from the heart,” said Betty Meehan, director of development for the School of Nursing.

The class members are:

EILEEN M. BLAND OF GLENNVILLE, GA.; GLORIA W. BRANYON OF ATHENS, GA.; LORRAINE M. DAVIS OF GREEN COVE SPRINGS, FLA.; SUZANNE A. HAMBY OF MARIETTA, GA.; JOCELYN KELLEY OF GRIFFIN, GA.; ETHEL ANN KIBLER OF DUBLIN, GA.; MARILYN E. MEEKS OF AUGUSTA; BARBARA T. SIMPSON OF AMERICUS, GA.; AND MARY ELLEN TRIPPE OF MARIETTA, GA.

The E. Louise Grant Chair Fund was established and partially funded through a gift in Ms. Grant’s will; the fund currently has \$345,900 in gifts and pledges. The chair, which will be fully endowed when it reaches \$500,000, as prescribed by the University System of Georgia Board of Regents, will help supplement the salary of a world-class faculty member, bolstering MCG’s tripartite mission of education, research and clinical care.

School of Nursing forms Faculty Practice Group

The Medical College of Georgia School of Nursing has formed a practice group enabling faculty to complement teaching and research with clinical service.

The non-profit organization, recently approved by the University System of Georgia Board of Regents, allows School of Nursing faculty members to create academic nursing centers delivering specialty care to the public or to contract

“The Faculty Practice Group is a major step forward for the School of Nursing.”

–Dr. Lucy Marion

with hospitals, clinics and other health-related facilities in addition to their MCG duties.

An example of an academic nursing center is the school's Underwood Project, providing community-based nursing to residents of an Augusta public-housing neighborhood. Examples of service delivery include a certified nurse specialist delivering psychotherapy in a mental health agency one day a week.

The employers will pay the School of Nursing Faculty Practice Group, which can use the funds to implement strategic initiatives and supplement faculty salaries.

The arrangement is intended to provide a venue for nursing practice scholarship, maintain and update faculty members' clinical skills and enhance their effectiveness as teachers by having students by their sides as they practice, according to Dr. Sandra Turner, acting director of the Faculty Practice Group.

“The arrangement is a big plus for our faculty and the clinical sites they work for,” Dr. Turner said. “It will help address the nursing shortage and will ensure that the faculty maintain cutting-edge knowledge and skills. Faculty

members also will be able to train students at their practice sites, so the experience should be very enriching educationally.”

“The Faculty Practice Group is a major step forward for the School of Nursing,” said Dr. Lucy Marion, dean of the school. “It's very rewarding to help create as stimulating and productive environments for our faculty and students.”

The group will soon activate its board of directors and hire a practice manager.

–Christine Hurley Deriso

Book Covers Nursing Strategies

Two Medical College of Georgia School of Nursing faculty members have published a book, *Real World Nursing Survival Guide: Critical Care and Emergency Nursing*.

The book, published by the W.B. Saunders Co., is written by Dr. Cynthia Chernecky, professor of nursing science and graduate studies, and Dr. Lori Schumacher, assistant professor of biotechnological nursing.

“This engaging book prepares readers to manage all of the common health care problems they'll see in critical care, trauma or emergency settings,” according to the book's description on Amazon.com. “Its lighthearted approach guides readers through each body system, maintaining current practice standards throughout. Each chapter organizes material from the most immediate and life-threatening conditions to less [urgent] situations.”

Textbooks to be Included in Online Library

Two textbooks co-edited by Dr. Cynthia Chernecky, professor of nursing science and graduate studies at the Medical College of Georgia, will be included in an online library of clinical nursing references called *Nursing Consult*.

Nursing Consult, a Web site developed by the international book company, Elsevier, is scheduled to go live in 2005 as a reference source for professional nurses. Elsevier maintains a similar Web site, *MD Consult*, for physicians. The sites are purchased by hospitals and clinics for instance references for their staffs.

Clinical Medical Surgical Nursing: A Decision-Making Reference was published in 2002 by W.B. Saunders Co. Dr. Chernecky's co-editor, Beverly George-Gay, is a former assistant professor in the MCG School of Nursing, and many members of the faculty contributed text.

“The clinical reference promotes critical thinking and emphasizes client care by helping nurses make the best possible decisions for 130 medical-surgical conditions and procedures,” according to the book's description on Amazon.com. “It is a quick yet comprehensive reference for today's nursing practice based on research and real-world practice.”

Laboratory Tests and Diagnostic Procedures was co-edited by Barbara J. Berger and published by W.B. Saunders Co. in 2003. The book details more than 900 tests for hundreds of diseases, conditions and symptoms.

“It is truly an honor to all of us (involved in the books) to be included,” said Dr. Chernecky.

–Christine Hurley Deriso

Enthusiasm for Nursing Field Proves Infectious

Lynn Goolsby laughs that, in addition to being a mom, she also doubles as her daughter's perfect study aid.

"Lindsey is an excellent student, and she supplements her studies by asking me a lot of questions," says Mrs. Goolsby, who earned a bachelor's degree in nursing from the Medical College of Georgia in 2000 and a master's degree in nursing anesthesia this December.

Mrs. Goolsby doesn't mind. She knows it's not every day that a mom also happens to be an expert in her daughter's college major.

Mrs. Goolsby, a mother of two from Washington, Ga., was earning her bachelor's degree from MCG while Lindsey was in high school, trying to decide what she would major in when she began college. Despite Mrs. Goolsby's enthusiasm for her new career path, she wanted her daughter to develop her own passion.

"You know, we really didn't talk about it a whole lot," Mrs. Goolsby says. "She told a high school counselor that she wanted to go into nursing, but I tried really hard not to push anything on her. I didn't want her to do it just because I was doing it."

But mother and daughter proved more similar than perhaps either had ever realized. After two years at the University of Georgia, Lindsey transferred into MCG's nursing program. "The opportunity to help people is what really attracted me to the field," says Lindsey, who will graduate in the spring. "I want to work in critical care. I like the intensity of it."

She also thinks the specialty will help prepare her for the next stage of her career: nursing anesthesia, just like her mom. "I plan on working for at least two years before I go back for another degree," Lindsey says. "I think I need the experience. But I'm excited

about eventually getting my nursing anesthesia degree. It's an area that offers a lot of independence, which is very important to me."

Her mom has been a good role model in more ways than one, she says, noting, "Mom studies all the time."

Mrs. Goolsby, who was a stay-at-home mom before beginning her MCG education, is happy she could set an example for her children. "When I started, I made up my mind that I wouldn't think about how long it would take me," she says. "I knew how much I wanted to do it; I was like the choo-choo train that says, 'I think I can.' I gave it 100 percent."

She and her daughter have never been classmates – "we had completely different schedules," Mrs. Goolsby says – but they have cheered each other on every step of the way.

"It's been good for both of us," says Mrs. Goolsby, adding proudly, "Lindsey's always been a very smart child. And now, my son, a senior in high school, has expressed an interest in nursing anesthesia, too. I think my experience helped my children be more focused."

–Christine Hurley Deriso



LINDSEY AND LYNN GOOLSBY

"She told a high school counselor that she wanted to go into nursing, but I tried really hard not to push anything on her. I didn't want her to do it just because I was doing it."

–Lynn Goolsby

A LESSON FROM MOM

By Dr. Alan Roberts

EDITOR'S NOTE: DR. ALAN ROBERTS, ASSOCIATE PROFESSOR OF MEDICINE AND CREATOR AND CHAIR OF MCG'S ETHICS CURRICULUM, DEDICATES THIS ESSAY TO FAMILY MEMBERS MAKING DECISIONS FOR THEIR DYING LOVED ONES.

Mom died at 1:40 a.m. March 15 in her hospital room on the sixth floor of MCG Hospital. She was receiving nasal oxygen, intravenous fluid and intravenous morphine, which I administered when necessary to keep her "comfortable." I am not at all certain she would have considered herself comfortable, even with morphine.

Perhaps the word, morphine, made us more comfortable. My wife, Janet, and I were with her, and had both dozed off. For some inexplicable reason, we both abruptly awakened at the moment of her last breath, as if we sensed her death. Perhaps the silence of her not breathing anymore was what we heard. I think it was more than that. At that moment of death, both Janet and I felt we could see her soul leave her body, see it rise heavenward.

The last four hours of her life were peaceful. The 16 hours before that were awful.

Mom was 92 years old and never the same after she was found on the floor in her kitchen six months earlier. We never found out what happened to her that night, but what I knew was that her persona, her *self*, was gone.

When Janet and I realized she wasn't improving, we moved her from Florida to an apartment in Augusta and furnished it as closely as possible to what it had been like in her previous apartment. We hired round-the-clock caregivers but saw her several times a day. She became an enjoyable part of our everyday lives, as we became of hers.

The months were marked by subtle signs of progress, then new setbacks. Another fall strained her back, then she fell and sprained her ankle. Most intriguing to me was that when she hurt her ankle, she insisted on calling me. Whatever my mom *didn't* know, she knew that she had a son – her son, the doctor! This was literally the first time since her original fall that she expressed initiative of any kind.

Three weeks before her death, Mom became agitated and displeased with her caregiver one evening. This was a remarkable change. It was as if Mom had returned. She became so much more aware of her surroundings; she started asking questions and interacting in a way she had not been capable of before. Mom was back and we were thrilled.

Then a respiratory illness set in motion her final decline. We weren't ready for this to happen. I wonder if anyone ever is. Yes, we had her advance directive and knew that she hadn't wanted to be on life support for a catastrophic illness. And yet we were tortured by the fact that perhaps this was a self-limited illness from which she could recover with assisted ventilation. We decided to honor her directive.

This was, for me, one of the most difficult decisions I have ever made. She was, at this time, still alert, but too ill to communicate in a meaningful way. Janet and I knew how much she was suffering, and her eyes seemed to be asking, "Why aren't you doing something for me?" And I wondered whether we shouldn't be doing something more. Were we making the right decision? Didn't Mom deserve one attempt at bronchoscopy and assisted ventilation? There was no question she would die without it.

Janet and I, at her bedside in the emergency room, agonized over this. My years of practicing medicine and teaching medical ethics, all of a sudden, mattered not a whit. I was now only a son who wasn't ready to lose his mother.

Nothing seemed real, except seeing Mom fight to breathe, fight to stay alive. This became unbearable. I suctioned her myself, frequently, to ease her discomfort, and perhaps to ease mine. I was, after all, her son, the doctor.

And so I watched her die.

Not being able to do something for my mother when she needed me most was excruciatingly painful. I felt as if I was not there for her when she needed me most. After Mom died, I continued to agonize. Would she, facing death from an incidental albeit catastrophic event, have wanted heroic measures despite her advance directive?



Perhaps there are no answers. My medical knowledge and experience didn't help me. I was left with one overwhelming emotion: I watched my mother die and I could not help her.

If there is a lesson to be learned from this experience, it is that a greater force exists than our finite, limited one. Too often, we cannot influence the process of life and death. This, then, is my lesson. And as the pain of Mom's death lessens with time, her legacy is her memory. I will always remember her smile and pleasure when she saw me. I will always remember the last four months of her life, of what we shared and the joy of her life, when she was once again close to us. And some day, when the pain and grief of losing her diminishes, I will be able to accept the fact that I did all I could, and that my mother rests easy, knowing this to be true.

MEDICAL COLLEGE OF GEORGIA TODAY WELCOMES SUBMISSIONS TO THE REFLECTIONS COLUMN OF THE MAGAZINE. TYPED ESSAYS (APPROX. 750 WORDS LONG) REFLECTING A PROFESSIONAL OR PERSONAL EXPERIENCE OF A MEMBER OF THE MCG COMMUNITY SHOULD BE SUBMITTED TO: CHRISTINE HURLEY DERISO, EDITOR MEDICAL COLLEGE OF GEORGIA, FI-1040 AUGUSTA, GA 30912 (706) 721-2124 (PHONE) (706) 721-6397 (FAX) CDERISO@MCG.EDU (E-MAIL)



Partnering for Success

MCG PRESIDENT DANIEL W. RAHN DISCUSSED EMERGING BIOMEDICAL BUSINESS OPPORTUNITIES DURING THE DEC. 2 CORPORATE PARTNERSHIP PROGRAM LUNCHEON AT AUGUSTA'S RADISSON RIVERFRONT HOTEL. THE CPP HELPS OPTIMIZE OPPORTUNITIES FOR TECHNOLOGY TRANSFER, INFUSING BOTH MCG AND THE CORPORATE COMMUNITY WITH NEW OPPORTUNITIES FOR GROWTH.



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